Accept no imitations – if you own a CPC the only mag you need is...

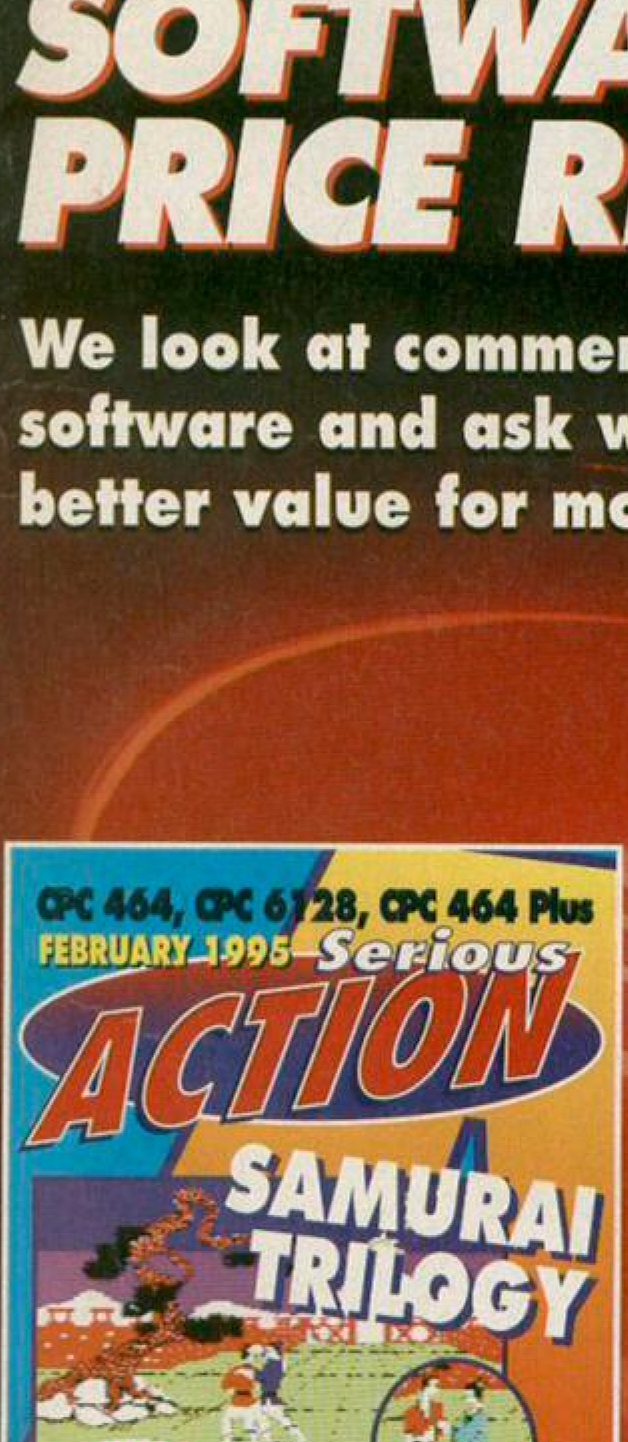
AMSTRAD ACTION

ISSUE No. 113
FEBRUARY 1995
£2.95

SOFTWARE – IS THE PRICE RIGHT?

We look at commercial and PD software and ask which offers better value for money...

WIN! A sackful of Alternative software!



- Fanzine news
- Game cheats
- Machine code sprites
- BASIC programming tips
- Latest PD releases

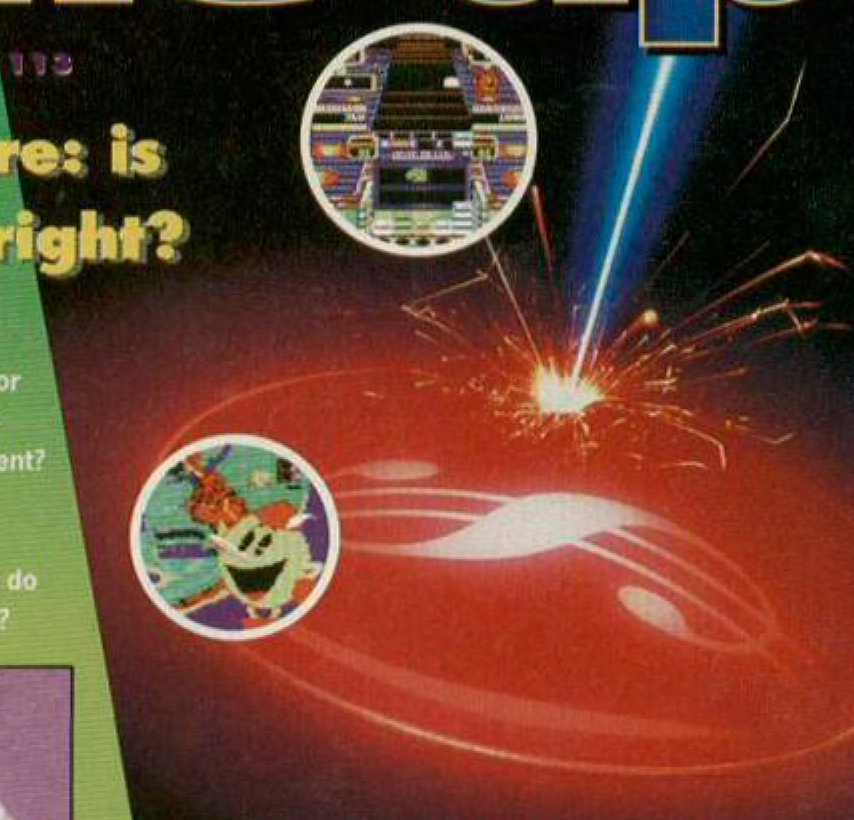


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AMSTRAD ACTION Line-up

FEBRUARY '95 ISSUE 113



11 Software: is the price right?

Is commercial software overpriced and overated, or head and shoulders above the Public Domain equivalent? Angela Cook makes the comparisons and talks to people in the industry. But do you agree with her verdict?



10 Let your fingers do the wiggling

You've got a joystick and you know how to use it. But does your keyboard recognise it? Richard Wildey writes the routines to ensure that your hardware lives happily ever after.

On this month's covertape...

PowerSpell

Stymied by spell checkers that only tell you if a word is spelt incorrectly and don't suggest a replacement? Fume no more. *PowerSpell* doesn't recognise a word? Add it to your own user dictionary. Hey presto! Problem solved!

Samurai Trilogy

Karate, Kendo and Samurai – deliver kicks and wield swords to overcome your opponent without moving a leg muscle or away from your CPC! All three all-engrossing, all-action games in one.



Turn to page 5 now! ►

Regulars

Serious stuff

Leisure Zone

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NOTE: Please do not ring the office for advice. We can only answer your questions through the pages of the magazine. Please send written enquiries to one of the addresses above.

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Reaction

Now you can reach us by snail mail or by e-mail (see Get the message, *AA105*). Write to Reaction, *Amstrad Action*, 30 Monmouth Street, Bath, Avon BA1 3JR or e-mail us at AA@futurenet.co.uk putting Reaction in the subject line.

A bit of a raw deal?

I would like to see more help in *AA* for raw beginners who, like me, are just starting off.
RR Tregaskis, Jersey



WACCI: help for endangered species?

Unfortunately, you are one of a rare breed, RR. We don't actually have that many beginners reading the mag these days, so beginners' features won't appeal to many of our readers. Your best bet would be to get in touch with the user group WACCI (see the WACCI offer! box on this page or the Amscene Directory on page four for details). The group will be happy to help. **Karen**

Part-y lines

I lost money to Avatar while trying to obtain the necessary parts to carry out the 6128 Plus tape upgrade. After spending much time and more money telephoning and writing to try to get a refund, I gave up and obtained the necessary parts on my own.

Therefore, in an effort to help other 6128 Plus owners in the same predicament, the parts required are as follows:

Q01: Transistor 2SC1815
R4: Resistor 1K ohm (1/4 watt)

CP07: This is not necessary, as with care the connections to the main circuit board may be soldered directly.

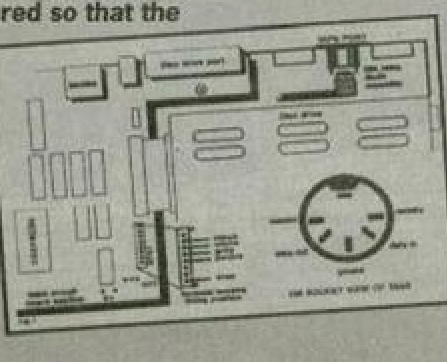
Relay: Use any five or six volt single pole change over relay of suitable size.

Five-pin DIN socket and a matching five-pin DIN plug.

These parts should be obtainable from any reasonably good electronic parts supplier and cost less than half the price Avatar were charging.

The remote control of the data recorder should be connected on the normally open contacts of the relay. This requires, that to rewind or fast forward a tape in the data recorder, the 6128 Plus is set to :tape and either the RUN or LOAD command has been given to the computer.

Also, the wiring shown in *AA92* needs to be altered so that the wire from the main circuit board shown in *white* is connected to the end of the diode with the band and the *blue* wire should go to the opposite end of the diode.


Uncross those wires and upgrade your Plus on your own!

In one of your recent issues you seemed at a loss as to the position of Umberleigh, Devon. It is located on the A377 about eight miles south of Barnstaple. And as nobody knows where Chumleigh is, I'll tell you. Chumleigh is halfway between Exeter and Barnstaple east of the A377.

Trusting that this information will help others and that you will keep your marvellous publication going.
C Hankin, between Exeter and Barnstaple

Thanks very much for the information, C (there's no need to be so formal, we're all on first name terms here, you know). Hopefully, we will run a few more hardware projects in the near future, so if anyone has any ideas along this line, feel free to drop us a line. **Karen**

Cutting 'Back Issues'

Since the magazine is now so small maybe reducing the size of the Back Issues advert and doing away with the covertape page by putting a help and instruction file on the tape itself could free up another page and a half. And what about that three-page Christmas feature in *AA111* – blatant space filler or what?
J Penwarden, South Beddington

Simon was very hurt when he saw this letter so to cheer him up we commissioned a few more space fillers from him. We have already done much to make the best use of the space, and will continue to nip and tuck here and there. **Karen**

Hang on in there

I think you should put the Gallery back in *AA*. I, for one, would send in a picture. Plus, I think you should put type-ins back on the covertape. As you said in *AA77*, "What's the point of typing in listings when you can load them from tape?"
Adrian Hieatt, Cambridge

Do send in your pictures. If we get enough we will set up a regular Gallery page. Include information about how you created your works of art so that we can pass on your pixel painting tips to other budding digital Da Vincis. **Karen**

Address the issues!

***Amstrad Action* has neglected a vital piece of information since time immemorial: a boxout supplying the address for programmers to submit our material for reviews and previews. Perhaps you would like to put the record straight by including in the near future? Perhaps it's just one of the many reasons the mag hasn't received much in the past!**

Another reason could be that people don't exactly the thought of supplying material to a magazine whose staff openly declare their interests in the PD sector.
Brian Bond, Bromley

Er, sorry? What's wrong with having an interest in PD? Of course, you can't base the whole scene on PD alone, but there's nothing wrong with recommending the decent stuff, is there? We can only review stuff we get sent. The *AA* address appears at least three or four times in each issue – perhaps counting them could be an ongoing competition? – but I take the point. Now children can you spot the *AA* details on this page? **Karen**

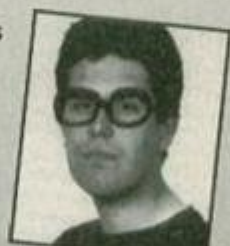
Wondering weather...

Have you got any famous readers?
K Francis, Dundee

Er, don't know. Does anybody famous want to own up? I reckon TV weather presenter Bill Giles looks like a secret CPC user. **Karen**

At logger Eds?

Have you noticed that in ex-*AA* editor Dave Golder's new mag (*Ultimate Future Games*) that they keep making snide comments about the GX4000?
Jonathan Norton, Staines


Naughty, naughty, Dave.

Yes. I think it's about time I went and sorted him out, don't you? **Karen**

WACCI Offer!

First I would like to welcome you, Karen, to the CPC scene – I hope you continue with it for a long time to come.

I would like to offer *AA* readers a New Year special offer. Instead of £4.50 for a three-month subscription, I am offering a 33% saving making the cost just £3. Yep, three 32-page A4 magazines for £1 each. This offer is only open during the month of February to *Amstrad Action* readers and new members.

This offer is for full membership (it's not a ploy to dump back issues) and every *AA* reader who applies will receive the current issue of the magazine, namely the February issue, together with the Magazine and PD library Index and the WACCI supplement, which gives details of all WACCI services.
Paul Dwerryhouse, Clwyd

What can I say, except 'Ta very much'? If you want to take advantage of Paul's generous offer, send your details and a cheque or postal order (made payable to WACCI) for £3 to: WACCI subscriptions, 7 Brunswood Green, Hawarden, Deeside, Clwyd CH5 3JA. Karen



Amscene Directory

PD Libraries

Basic PD
3 Beacon Lane, Whipton, Exeter, Devon, EX4 8BD
New cassette-only library. 15p per side of C15 tape (95p if you don't provide a tape).

Colrob PD
9 Aviemore Road, Hemlington, Middlesborough
New tape-only PD library.

Demon
42 Overton Close, Hall Green, Birmingham B28 9NA
3.5-inch discs available.

Image PD
Darren Dodds, 15 Elmwood Drive, Ponteland, Newcastle NE20 9QQ
Also provides a digitising service which has to be good news.

Jamo PD
☎ 0676 533467
A two-side selection costs the same as one-side.

PD Fun
Folly Farm, Cold Ashton, Chippenham, Wilts, SN14 8JR
A policy of 'no serious software'.

PD Point
10 Frimly Close, Blackburn, Lancs, BB2 3TU
☎ 0254 580901

Sheepsoft
298 Holton Road, Barry, South Wales, CF63 4HW
☎ 01446 700730

Fanzines

Amszine
Gayton, Laneside Road, New Mills, Nr Stockport, SK12 4LU
☎ 0663 744863

The Eliminator
14 Station Road, Riccall, York, North Yorkshire YO4 6QJ

CPC Undercover
37 Trimingham Drive, Brandlesholme, Bury, Lancashire
Technically-minded fanzine.

User Groups

UAUG (United Amstrad User Group)
☎ 0329 234291
An AA-recommended user group.

WACCI
☎ 0244 534942
They're fab. Give 'em a ring.

Indie Software Companies

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Please note: this is Campursoft's correct address, not the one stated in previous reviews. Sorry!

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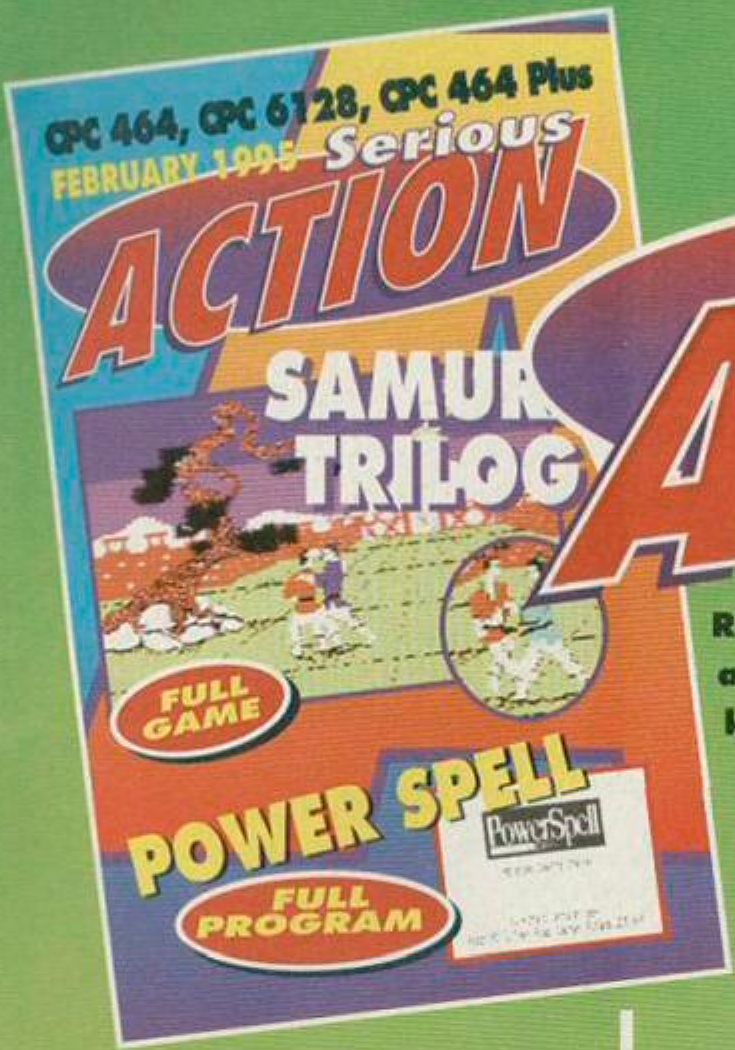
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Serious ACTION

Richard Fairhurst shows you where the really serious action is... and tells you where you could get your kicks! All together now: 'I think I'm turning Japanese'

PowerSpell

Robot PD

One of *AA*'s biggest covertape coups was to feature the full commercial word-processor, *Tasword*, a few years back. Ever since, we have been pestered by demands for a spelling checker. So here it is: the all-new (if not perhaps all-singing and all-dancing) *PowerSpell*.

Because *Tasword* keeps a large (48K) dictionary in memory, it won't run on 64K machines. For 128K owners, though, operation couldn't be easier: the main menu (operated with cursor keys and ENTER) even includes an option for full instructions.

Some CPC spellcheckers only tell you if a word is spelt incorrectly. They expect you to fix it yourself which is a bit tedious if you have to flick through the Oxford English Dictionary every ten seconds. With *PowerSpell*, though, you can use the 'Consult' option to look up the closest words in the dictionary, and replace the misspelt word with any one of them.

You can fit a lot of words into 48K, but it's still only a fraction of the English language. That's why *PowerSpell* has a 'user dictionary' feature. In brief, if a word is spelt correctly and *PowerSpell* doesn't recognise that word, you can add it to your own user dictionary. Load this in every time you run the program, and the word will be recognised just like any other. You can add words either, as you check the document, or using the Edit option on the main menu.

Samurai Trilogy

Gremlin Graphics

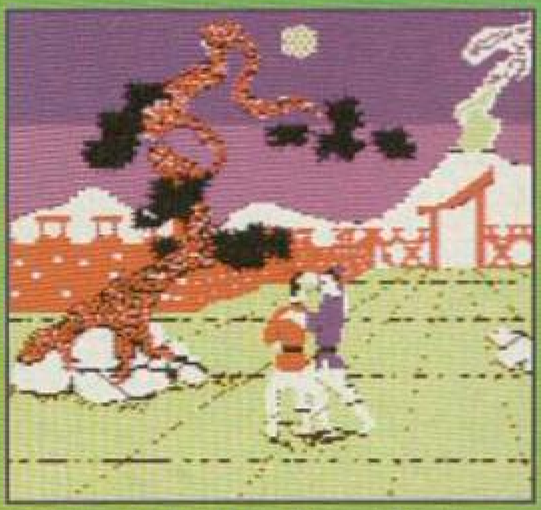
With the violent adventures of Chun Li and her ilk, beat-'em-ups have been very much in fashion for Tarantino wannabees over the past few years. Newer recruits to the CPC might be surprised to know that the Amstrad was kickin' butt long before Nintendos ever were.

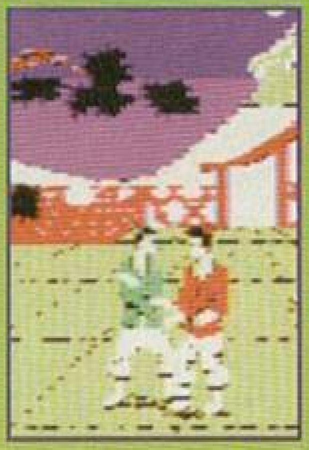
You want proof? Well, take a look at this month's covertape. *Samurai Trilogy* is actually three games in one. Practise your flying kicks in the Karate section, and move on via Kendo to waving a large sword around threateningly in Samurai. The emphasis is less on trashing bad guys, more on proving your fighting worth to the Master – often within a time limit.

Control is joystick-only. Before the actual fighting takes place, you have a couple of menus to navigate: you can practise any of the three games, choose your opponent and, finally, pick your strategy and training routine. Just move the highlight bar with the joystick, move it right to select an option, and press fire to leave the menu. (Don't ask it to play in French or German by the way: we only had space for the English version.)

Then it's frantic stick-waggling time, as each direction makes your fetchingly-attired red psychopath chop a hole in a different place in his opponent. The bars at the bottom indicate your attacking and defending strength, together with that of your opponent (in his colour). In addition, on the Karate and Kendo levels, there is a time limit for you to prove your manliness. (Modern concepts of equality don't seem to have been a part of Imperial Japan. Sorry.)

The main program and the Karate and Kendo levels are on side A of the tape, with Samurai being on side B. This means that you ignore the messages about inserting the reverse side and rewinding unless you are playing Samurai.


You wanna fight? No Kendo. Sorry!


Getting the chop!

LOADING THE TAPE

Just plop side A in the tape deck, type |TAPE if you have a disc drive attached to your system, and then type RUN" . When the menu loads you can load *Samurai Trilogy* or *PowerSpell*, or transfer the entire covertape to disc. For the latter, check you have a blank data-formatted disc in the drive. Then, once you have transferred the disc, typing RUN"MENU lets you choose between programs. Alternatively, our duplicators, Ablex, will send you a disc version for £2. Send a cheque or postal order, made payable to Ablex Audio Video, with your name and address, plus the token below to: AA113 Disc Offer, Ablex Audio Video, Harcourt, Halesfield 14, Telford, Shropshire TF7 4QD. This is also the address to which you should send covertapes that come up with read errors. If this happens enclose an SAE, a note describing your CPC setup and the problem you are having.

DISK 113 TOKEN

Public IMAGE

Keith Woods gets excited by match-making between molecules and atoms but says Greek S.E.X. turns him off



Atomic: a sort of Blind Date for molecules.

Atomic Preview

By Patrick Himrichs

Science is boring, right? Staring at boring little blobby things which move about under a microscope just isn't your idea of a good time, is it? Playing games on your CPC or watching *Tarantino* movies might be more like it, but observing atoms and molecules just doesn't cut the ice.

What, however, if these little particles of infinite wonder were transferred to your CPC screen, and put in a puzzle game by the master of the genre, one P Himrichs (alias Fraggle)? What if they were bigger and more colourful and you could move them around and, this is the good bit, blow them up? That sounds a bit better, doesn't it? It is.

You are a mad scientist on the verge of great discoveries. Your job is to link various different atoms to form molecules. Each level you are given a set number of molecules of a certain length to create, and a set number of atoms to do it with. Simply place two atoms side by side and they link together, that is, if they have any electrons left. (With me so far? No, well tough, you'll pick it up.)

The number of electrons within each atom is denoted by the number on its face. For a molecule to be complete all the electrons in its atoms must be used up. Therefore, you have to link each atom to enough other atoms to use up all the electrons. Once you create a complete molecule it blows up (don't ask us why), leaving space to create more.

Unfortunately, your game doesn't end when you have created enough molecules. You still have to get rid of the rest of the atoms by creating yet more molecules, thus blowing them to oblivion. As it's easy to finish with one or two left over, this is what makes the game most difficult.

Look, I know, all this talk of atoms and electrons sounds about as exciting as a science class on a wet Monday morning but, trust me, it's better, much better. It's one of the most ingenious puzzle games out of the many in the PD, and to wheel out the most oft repeated Public Image phrase one more time (all together now), 'If you like puzzles, you'll love this.'

But there's a problem. It's just a preview so there aren't many levels. And the German magazine you could have got the full version from is long dead. I could tell you that by loading the game, typing POKE 368,214:POKE 369,0 and changing line 15 to read IF lv=14 then 113 you would get to play many more levels. But I'm too mean to even think of doing that.

85%

Joe Contre Les Pharons

By Anonymous

I'm in a bad mood this month. Why? Because I have to review trite like this and that awful Greek disczine.

Joe's got serious problems. He's a tiny sprite, he moves really slowly, he's not animated, he sounds awful and he looks like a rat. He's also stuck in a dirty great pyramid with a whole host of nasties crawling on his tail, but he can stay there, because this game isn't worth touching with the longest of barge poles.

It's hardly surprising that this game's anonymous – no-one would want to own up to writing it!

10%



Joe – sheer tombfoolery. Definitely cursed.

DMA

By Weee! of The Cadjo Clan

This is one to really depress all Plus owners who bemoan the wasting of their machine's capabilities: for example, the DMA sound feature, which was only ever used to any great effect in *Prehistorik II*.

And Weee's DMA demo. This was originally intended as a demo of a Plus soundtrakker, a demo which, sadly, was never released. It plays a catchy tune which shows off what the Plus is really capable of, including some stunning digitised speech. In fact, it's considerably better than the *Prehistorik II* tune.

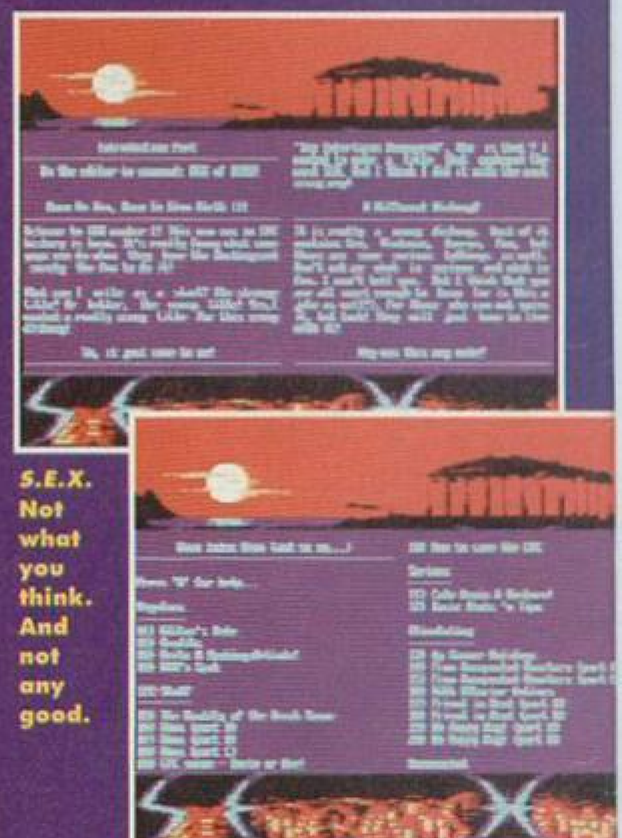
Unfortunately, it's probably the first and last example of good DMA music to grace the CPC. *DMA* is worth getting purely out of interest to see what could have been.

60%

S.E.X.

By Rex and KOD A Beng! Production

The Greek PD scene has been relatively quiet lately, so it was such a pleasant surprise to find the Greek's first PD disczine popping unexpectedly through the letterbox. I then skipped happily to my CPC, expecting great and glorious things.



S.E.X. Not what you think. And not any good.

Five minutes later, though, I was cradling my head in my hands and shaking it violently, screaming: "No, no, noooo!" From which you may deduce that I was a bit disappointed. This disczine is as childish as its title and contains virtually nothing of interest to any self-respecting CPC owner.

Most of it, in fact, is taken up with short stories written by someone with no writing talent (hardly surprising since English isn't the author's mother tongue), but who has an obsessive desire to excite immature adolescents. What little mention there is of the CPC consists of long out-of-date news, reviews extolling the virtues of friends' productions and mind-numbingly boring articles bemoaning the demise of the CPC (which have all been written a thousand times before anyway). The rest is blatant fillers, such as 'My Summer Holidays' by Da Silva, which contains such riveting material as a discussion about why the hotel employees called him, Sir.

As if all this isn't bad enough the presentation is

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Quotes

"It's totally brilliant..... carries on the extreme user friendliness of Brunning Products to a very high standard..... I have one of these little gems plugged into the back of my CPC right now..... The ROM has performed in an exemplary fashion on all fronts." Chris Knight (ACU Editor) - ACU Aug 1991.

".....quite uncomplicated and easy to use..... you can just sit down and start typing..... the fastest most efficient spell checker anywhere..... Info-Script is a formidable piece of software engineering..... The BrunWord ROM is a truly excellent product." Rod Lawton (AA Editor) - AA Sept 1992

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the worst we've ever seen from any continental disczine. This is a particular disappointment, as continental disczines have a reputation for excellent presentation, if not always brilliant articles. *S.E.X.* tries to look like the best of them, the *Bad Mag*, but apart from the fact that it uses the same font there's no comparison.

The text in this disczine doesn't even scroll, and the border graphics look like a child's playschool scribblings. There's only one tune to listen to and it's a good rendition of that irritating and repetitive tune from Beverly Hills Cop, which is sure to have you reaching for the volume control.

The most pathetic aspect of the presentation, however, is the fact that you're treated to a poorly digitised dirty picture before each article.

Together the stories, the jokes (all of which are highly sexist) and the fact that the long list of people involved is exclusively male, gives the whole thing a real Boys' Club feel, which can only be described as repulsive. And people wonder why there aren't more female CPC users...

Overall, this disczine is a travesty that should never have happened. Only the sort of spotty kid that sniggers ignorantly at the back of religius education class when the teacher reads the passage about the shepherd leading his flock will appreciate this. Otherwise, avoid it like the plague.

2%

The CPC Gallery

By Various

Picture the scene: a crowd of camera-laden Japanese and American tourists murmur quietly, huddled in a small group as they move through a bright Paris art gallery. At the head of the group their guide is leading them into a new wing...

"Now, peephole, we have reached le CPC section of le Galeree. Here you will see many exampools of CPC artwerk of all kinds which 'ave originated over le last ten years.

"Now, eef you will just move over here we come to le first part of le CPC collecteeown. On your right, you will see an eexampill of deegeetised CPC artwerk, le most common type in le CPC traditeeown. Most of thees kind of artwerk is of leetle value, as een most cases it is leetle more than a deegeetised mess.

"But there are some excepteeowns, most notably le werk of the late David Carter, and le Frawnchman, Marco Vieth. On your right you see exampools of peectures from Daveed Carthair's Amiga Graphics collecteeowns."



Smile for the screenshot. That's luvverly.

"Aaah, sooo, very nice", interrupt the Japanese in unison, before a great clicking of cameras ensues. The guide, anxious to be finished in time for lunch and get to the canteen before all the jam rolls sell out, tries to continue...

"On le other side we see exampools of le werk of Marco Vieth. Hees is probably le best deegeetised artwerk available. Eet eez all in overscan and looks as detailed as a black and white photograph. All le peectures are very interesting (there are none of boring bicycles or logos), although some may be a leetle too risqué for some peephole's likeengs."



That fake Frog-speak is a bit wearing, non?

"Gee, that sure is really swell stuff", interjected an impressed American, "I wouldn't mind bringin' some of them there pictures back to the folks back home. Say, can you buy any of these things?"

"Of courrrse, sir. All of le pictures in thees galleree are PeeDee, and are stocked by most good PeeDee libraree.

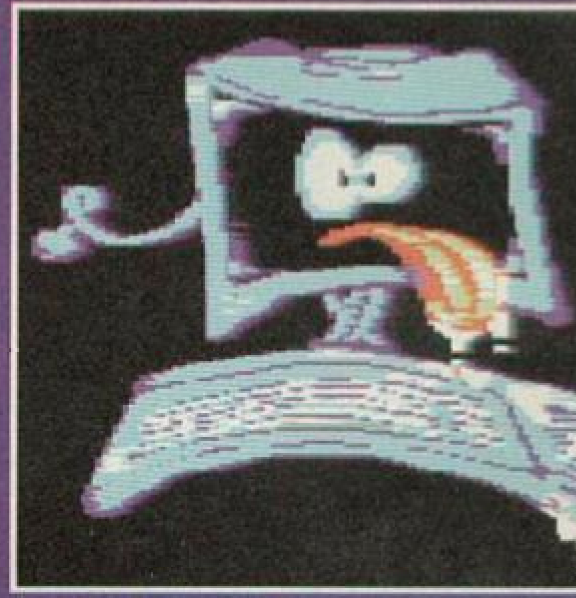
"Now, if we move just a leetle bit further down we come to the oreeginal art secteeown. Unfortunately, thees is a very small secteeown, we have yet to aquire many exampools of original artwerk for the CPC galleree.

"However, there is one arteest who has produced some stunning original artwerk. Thees arteest is also a Frawnchman, and his name ees Made. Made has produced many great slideshows of his artwerk. Le first, and steel le best was his Rebels slideshow, but the others are also very good. His artwerk is cartoony and very colourful, and much is also overscan. In fact, when you see 'Made' in the name of any production, you know that le artwerk will be absoluuutely stunning. He ees really le true Picasso of le CPC.

"Now, that brings us to le end of our leetle tour. Have any of you any questeeowns?"

A restless looking American raises his hand:

"Yeah, I'm kinda hungry, ye know, and I was wondering, is there a burger bar around here..."



In the galleries I've been to, people smile.



it's posed, it's in colour, but is it art?



Ah! Le portrait. Still, not yer average, tho'.



Next month...

These days PD libraries seem to come and go as fast as AA editors. (Whoops!) A number of well-established libraries are closing down, but there seems to be no shortage of new ones replacing them. Next month, in a Public Image Special (cue, gasp), we look at the joys and horrors of starting a new library, and talk to people who have been through the experience.

This month's apologies...

go to: GDPD Software. Why? Because we got it wrong (*you mean magazine editor's need to know how to read?*). GDPD is in business and Dave Stitson is in charge. The library continues to trade under GDPD as part of the CPC South West Amstrad User group. Copying costs 25p per disc side. Order four or more selections and you get one selection from the listings free.

Contact Dave at: GDPD, 4 Connaught Avenue, Mutley, Plymouth PL4 7BX ☎ 0752 254404.



Further reading

'It's only words...' *Only?* They're fanzines. About your chosen computer. So here's David Crookes, writing about the fanzines, written for you!

News

● Jonathon Brunhead has announced that *Amszine*, his 'zine, has changed from paper to disc. Want more details? Then write to Gayton, Laneside Road, New Mills, Via Stockport SK12 4LU

● *Another World* is now up to its third issue and we haven't had a review. Come on, Richard. Anyway it costs £1.50+SAE+disc and, by all accounts, it's a stormer. Contact Richard Avery at 35 Marlborough View, Cove, Farnborough, Hants GU14 9YA.

REVIEW



The best we've ever 'zine? Nope!

CPC South West Amstrad User Group Magazine
PRICE: 80p
EDITOR: Dave Stitson
ADDRESS: 4 Connaught Avenue, Mutley, Plymouth PL4 7BX

What a catchy name, it just rolls off the tongue, doesn't it? Anyway CPCSWAUGM (well, you didn't think I was going to type that little lot in again, did you?) is a fanzine that is aimed at CPC bods in that pointy bit of southern Britain that is usually called the South West. And it's cheap (the fanzine, not the South West) but, unfortunately, it shows.

Now Dave has asked me to be a little bit lenient on his new offering, because, as he points out, it is only his third foray into magazine publishing so let us take a closer look. First impressions count for a lot so Dave has enlisted the illustrious illustrator, John Reilly, to put together an impressive front cover.

However, it is only when you take a peek inside the magazine realisation dawns that it needs quite a bit of work doing. CPCSWAUGM is a bit like you feel while waiting at the back of the queue in a burger bar: empty and wearily waiting for some sumptuous tasty delight to fill that space.

Some of the pages of the magazine look as if they have been the result of an explosion in a font factory. They are cluttered and need a touch of fluidity so they look as if they belong to the same magazine, but how many people can claim to be a whiz at designing first-class pages as soon as they get hold of a new DTP package?

In terms of content the magazine takes a look into the air and shouts: 'Eureka!'. Pleasant type-ins fill a few pages and there is some neat advice being bandied about. A handy look at software on the cheap is included together with a groovy GAC tutorial and a smattering of reviews. It has to be said that, none of this is prize-winning material but it certainly bolsters the fanzine.

The $64,000 million dollar question: should you buy it? To which the carrot-gold answer is 'yes!', especially if you come from the South West because you have a chance to become part of a user group in your area and that should be supported.

Join a user group and you could
- make long-lasting friends;
- all join hands and sing the praises of the CPC;
- forge a greater understanding of your beloved machine, may be; or perhaps
- you could just have a nice chat, swap ideas and be better off for it.

Go on, give it a go. At 80p can you go wrong?

Content:	**59%**
Appearance:	**40%**
Overall:	**57%**

REVIEW

WACCI

EDITOR: Paul Dwerryhouse
PRICE: £1.50
ADDRESS: 7 Brunswood Green, Hawarden, Deeside, Clywd CH5 3JA ☎ 01244 534942

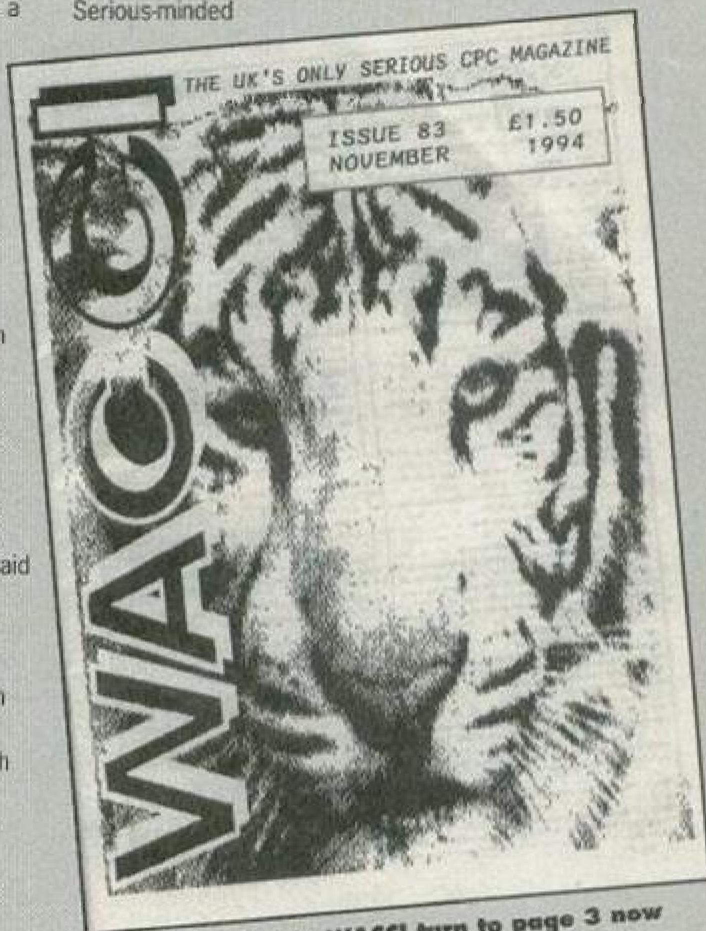
WACCI goes from strength to strength. Perhaps that's why there's a tiger adorning the cover of the current issue (think about it). Perhaps that is why I'm going to say something good about the mag.

Paul Dwerryhouse is the current editor and takes over from the infamous Uncle Clive who saved the club from the brink of death a couple of years ago. Has Paul changed anything, then?

There has been a much-needed attempt at brightening up the magazine by adding screen shots and clip art. Pictures were once scarce in WACCI which meant that often there were pages upon pages of pure three-column text. It looked smart and functional but after a while it seemed boring. It's getting better but it still needs a touch more in the way of graphics to strike a superb balance.

The latest issue of WACCI has more of the same. It contains:
at least a bean bag full of letters; a spot of machine code; two tutorials – one on getting the most from Protext and one about creating labels with MicroDesign – and reviews, together with an awful lot more stuff.

So, I bet, by now you are thinking: "Hmmm. Serious-minded magazine." Well, you'd be correct.



Tiger feat: to join WACCI turn to page 3 now

It's unfortunate that WACCI ignores games because they are such a major part of the scene especially with so many PD games and a crop of new releases just around the corner but then again WACCI caters for a niche market and they do that tremendously well.

The brilliantly-written articles, scrawled by its members, are a testament to the talent out there in CPC land and make the magazine truly the best CPC fanzine around. Nothing can touch it for sheer professionalism in production and approach.

The amount of freebies that are given away, for example, comprehensive library guides to all new members, coupled with all of the benefits of being a member (see AA111) make WACCI a 'must have' commodity.

Content:	**90%**
Appearance:	**85%**
Overall:	**90%**

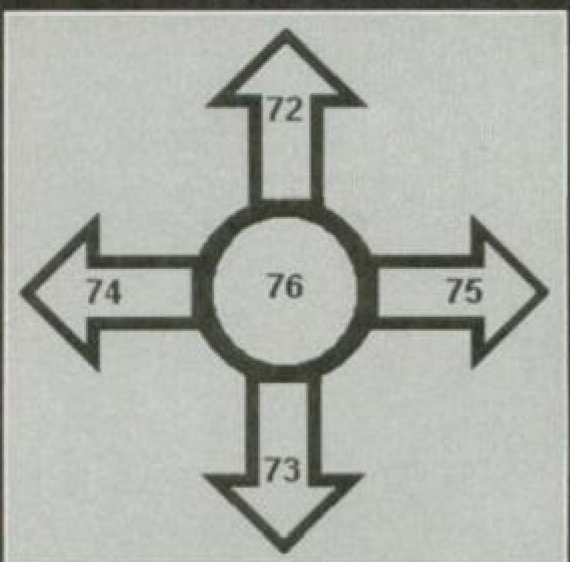
Let your fingers do the wiggling



Stop playing games and do something a bit more creative with your joystick, else you'll go blind, advises Richard Wildey.

You can easily incorporate joysticks into your own BASIC and assembly language programs in much the same way as you would use any normal keyboard input.

When using the INKEY commands to read the keyboard, Joystick 0, the standard, takes the keyboard values 72 – 76 as shown in the diagram



Joystick 0 showing keyboard values.

here (note that these are not the same as ASCII values). The less commonly-used joystick 1 takes the values 48 – 53, however.

Listing 1 gives you a quick and simple method of joystick scanning in BASIC using the INKEY method. You have to Insert these lines into your main game loop for it to work. This way is particularly easy to implement if your program has a redefine keys function.

Another, slightly more complex, way of reading the joystick port in BASIC is to use the command JOY. JOY returns a 6-bit value read from the given port according to the following table which shows which bits within the byte that will be set.

BIT	Direction
0	Up
1	Down
2	Left
3	Right
4	Fire 1
5	Fire 2

So, if JOY(0) or JOY(1) returns the value 5 which is 000101 in binary thus bits 0 and 2 are set indicating that the joystick being moved diagonally up/left. An example of this method is given in listing 2. Obviously, when incorporating this, or listing 1, into your own programs change the PRINT statements for co-ordinate adjustments of your sprite.

Avoid writing programs that are dependent on the second fire button as not all joysticks support this function. Likewise avoid programming for joystick 1 as this requires either a joystick splitter, currently available from OJ Software (see box, below right) or the quite hideous Amstrad JY2 joystick that was bundled with the CPC, for a brief period, along with some software that would make you ashamed to admit you own an Amstrad. Do bear in mind, however, that the CPC Plus machines do have the two joystick ports built in.

Enough of the basics (*lousy pun – Ed*), it's time to get yer assemblers out. The firmware call &BB24 has the same function as the BASIC command JOY command. It can be used accordingly in your main game loop as directed in the small demonstration in guise of listing 3 which was written with MAXAM in mind though it should work with most assemblers.

Now cobble this information together with the guide to programming and displaying sprites given in *Amstrad Action* 112, page 16, in the machine code tutorial by Rob Buckley and you should, have some characters of your own, and, under control.



Making your keyboard accept your joystick is within your grasp

Listing 1
The BASIC INKEY command

```
10 IF INKEY(72)<>-1 THEN PRINT "UP"
20 IF INKEY(73)<>-1 THEN PRINT "DOWN"
30 IF INKEY(74)<>-1 THEN PRINT "LEFT"
40 IF INKEY(75)<>-1 THEN PRINT "RIGHT"
50 IF INKEY(76)<>-1 THEN PRINT "FIRE 1"
60 IF INKEY(77)<>-1 THEN PRINT "FIRE 2"
70 GOTO 10
```

Listing 2
The BASIC JOY command

```
10 IF JOY(0)=&X1 THEN PRINT "UP"
20 IF JOY(0)=&X101 THEN PRINT "UP/LEFT"
30 IF JOY(0)=&X1001 THEN PRINT "UP/RIGHT"
40 IF JOY(0)=&X100 THEN PRINT "LEFT"
50 IF JOY(0)=&X1000 THEN PRINT "RIGHT"
200 GOTO 10
```

Listing 3
You get the idea...
Z80 example code for BASIC JOY command.
Firmware call &BB24.

```
ORG &4000
.loop
call &BB24          ;CALL JOY
cp 1                ;is it bit pattern 00001
call Z,up           ;if so gosub UP
cp 2                ;is it bit pattern 00010
call Z,dow n        ;if so gosub DOWN
cp 8                ;is it bit pattern 01000 (fire)
ret Z               ;if so end.
jr loop

.up
ld hl,(ycord)
inc hl
ld (ycord),hl       ;Increase the Y co-ordinate
ret                 ;Return

.down
ld hl,(ycord)
dec hl
ld (ycord),hl       ;Decrease the Y co-ordinate
ret                 ; Return
```

Your joystick in their hands

OJ Software,
273 Mossy Lea Road,
Wrightington, Nr Wigan,
Lancs, WN6 9RN
☎ 0257 421915,
Joystick splitter £2.99

SOFTWARE is the price right?

Is PD rubbish written by ten-year-olds? Is commercial software expensive and overated? Angela Cook sets out to explore and, perhaps to explode, the stereotypes...



Some PD is very good and commercial releases live up to their hype and beyond (take *Fluff*, *Prehistorik II* and *MegaBlasters*, for example). There are also releases that defy the battering they receive (for example, *Ball Bearing*, *Black Jack* and *Cribbage*). So, do the stereotypes hold true? (We are talking mainly games here, folks).

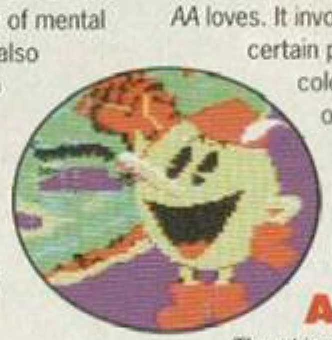
Puzzled? You should be

This genre has had people going for years. *Tetris* is one of the main contributors. It's a game of mental torture from behind the Iron Curtain and also one of the earliest, most cloned and also most publicised games around.

What's *Tetris* about? Well, you 'simply' have to slip all the differently coloured, shaped blocks into place, to form a wall. It's the sort of game you can pick up for 'just a few minutes', then realise that you have missed an entire episode of Red Dwarf on the telly.

The graphics are not bad in the commercial version, but the control is reasonably difficult. The music is pretty good, but there's not much in the way of sound effects.

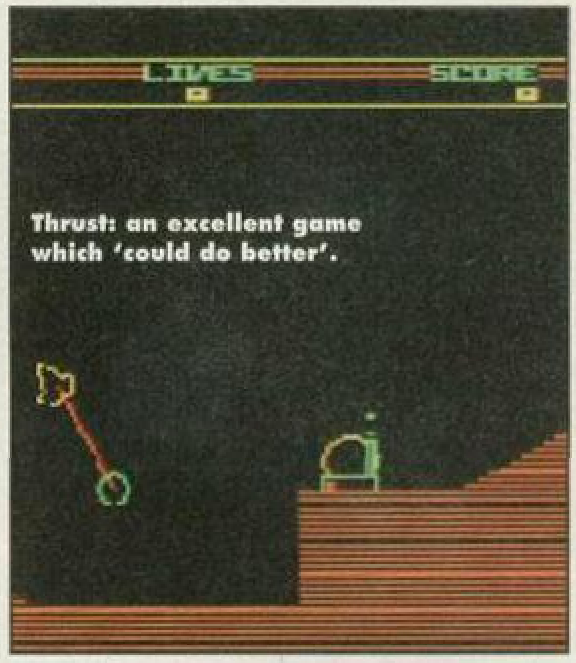
The Facehugger version, called *PowerTetris*, has excellent graphics, very smooth scrolling, and the pieces are easy to control. There are multi-player options, too. There is a good theme when you select your gameplay, but you only get sound effects once you are in the game. PD wins on this one. Although half the PD clones of *Tetris* are not much cop.



Klax is another puzzle game which everybody at *AA* loves. It involves dropping coloured tiles into certain positions to gain points. *Klax* is colourful, noisy and exciting. One of the only *Klax*-clones is *Coleurs* – a cross between *Tetris* and *Klax*. The commercial company Domark wins by a longshot, although *Coleurs* is really in a class of it's own.

Arcade at that!

Thrust is a commercial arcade-style shoot-'em-up and an excellent game. The graphics are simplistic, but effective. There is no in-game music, only the sound effects. Fortunately. The atmosphere may have been ruined if there had been some ghastly Eighties tune accompanying it. The idea is to fly your spaceship from planet to planet collecting things then blow up the planet afterwards!



Thrust: an excellent game which 'could do better'.

Most PD games reach a similar standard, but not in the same way. I have no specific game in mind, but many PD clones cannot overtake the original. Let's call it a draw on this one, because many games do surpass *Thrust*.

The *Gauntlet* saga is another breed of arcade game. It has no real storyline, other than you must survive for as long as possible, and get to the next level. You can be a warrior, wizard, valkyrie or an elf.

It has good, although not wonderful, graphics and is 'shot' from a position that is almost directly overhead. All three games are fun, and two-player action is a must. Again, I have no specific PD image in mind, simply because PD has not reached this standard or type of gameplay. Commercial software wins this battle.

Pac-Man, *Pac-Girl*, Pac-The-Kids-Off-To-School, and now *Pac-Land*. *Pac-Man* is another commercial game that has been cloned to death. But the PD title *Pac-Land* is different. It is not better, but different. In this one, you go out and collect cherries. The graphics are bearable, the sonics are bearable, the game-play is bearable. Come off it, if you are going to do a game, do it well, as my mum says.

PD must win this one. Most of the *Pac-Man* clones are above average, and the sheer number, together with all their twists and quirks has got to be worth something.

Chuckie Egg – ah, another commercial favourite. I remember playing this on a BBC years ago at school. The graphics on the CPC version are exactly the same, mode 0 and neat, rather like *Thrust*. The



Klax the way, ah ha, ah ha, we like it!

Isn't that a bit Rich?

Richard Wildey is "Sentinel Software". He sells all sorts of games, including *ZapTBalls*, *Ball Bearing*, *Black Jack*, *Cribbage* and others. After a lot of umming and erring, I finally got something out of Richard, here's what he had to say....

AA: What is your general opinion of Commercial and PD Software?

RW: I think PD is great. There are lots of good things coming over from Europe right now. Recently though, the quality has got a lot better, because of the competition. Commercial software is a bit thin on the ground at the moment. Unfortunately, there is not really enough incentive for the programmers or distributers.

AA: What did you hope to achieve by opening Sentinel Software?

RW: A good and reliable service to loyal CPC users.

AA: Do you think that there are too many PD libraries around, and that the same programs are being distributed throughout?

RW: Yes, and yes. I don't like people opening up a library for the sake of it – especially when they have got nothing to add to it. And the same stuff goes right through PD libraries. In one sense that's good, though, because that way you can keep with one trusted library.

AA: Is commercial software getting better in quality?

RW: Yes, because there is more access to computer learning, and there is not the sort of social segregation like previously. I think that now, most people are involved in lots of different aspects of the CPC scene, and are not just home consumers.

AA: Do you think that the quality of PD is comparable to commercial software?

RW: No.

AA: With the increasing amount of PD being made available, do you think it is taking over commercial software, or ever will?

RW: Yes, I think it will eventually, especially in the case of the CPC. But other formats are now leaning a lot towards PD and Shareware.



Richard Wildey: I think that PD is great

AA: What are the benefits and drawbacks of commercial software, as opposed to PD?

RW: From a programmer's point of view, you can make more money from commercial software, although not much. However, PD does serve the use of being able to to test your programming style before you move on to bigger things. Isn't there some saying about dipping your toe into water or something?

AA: Do you think PD and commercial software are at war, or are they helping each other?

RW: I think they do help and complement each other. PD is a good place for programmers to start out.

AA: What bit of advice would you give to somebody wanting to start a commercial business, like yourself?

RW: Don't – unless you are prepared to put a lot of time and effort in it, for not much reward.

AA: What are your favourite commercial and PD games?

RW: *Gryzor*, and *Prehistorik II*, *Plumpy* and some clone of *Minesweeper* for PD.

AA: Do you program yourself and, if so, what are some of the things you have done?

RW: Yes, I programmed *TUSS*, an excellent sprite searcher.

AA: Yeah, the one we have all heard of. By the way, I happen to jinx people I interview.

RW: Thanks, remind me to do you a favour some time, too.

Contact Richard Wildey at:
Sentinel Software, 41 Enmore Gardens,
East Sheen, London, SW14 8RF.

Just Arthur minute of your time

Arthur Cook is a tape librarian for WACCI. He has just opened 'King Arthur's Domain PD Library'.

AA: What is your opinion of Commercial and PD Software?
AC: Like everything, there is good and bad. This holds true in PD and commercial software, the difference being that with PD you are paying a lot less, and can afford to take the risk.
AA: Why did you open a PD library?
AC: I wanted to take it over to stop another library closing with some very good software in it. I took it over from Barrie Snell, the person who wrote *Black Jack* and *Cribbage*.
AA: Do you think that there are too many PD libraries about, distributing the same software?
AC: Like everything else, you just have to sift through it. You get good and bad libraries, I hope mine will be a good one. Only the customers will know, however.

There is so much PD around, and people are always writing more, whether it's good or bad, it is still PD. The other thing is, that you can even learn from bad PD programming. If you are any sort of a programmer, you would think:

'I can do better than that', and then prove it.
AA: Do you think that PD is getting better in quality, if so, why?
AC: Yes. There is more publicity towards it. Amstrad Action are now doing bits on



Arthur Cook: PD is there, it's a fact of life

it (*a whole two pages every month I will have you know- Ed*). Even in the PC line, you have shareware and the like. Also, there is more awareness of programming concepts. Groups tend to stick together and help each other out to produce great programs. The Europeans, especially, do this.
AA: Is the quality of PD comparable to commercial software, and is it bridging the gap that commercial software has left?
AC: In some cases PD quality surpasses commercial. For example, *NSWEEP*. There are so many good games on the PD market, you cannot ignore them. And that's coming from essentially a non-games player!

In my opinion, PD has to take over in those instances where commercial software is no longer so readily available.
AA: Do you think PD and commercial software are at war, or are they helping each other?
AC: Well, they should get along well, but in my opinion they aren't really. Commercial software houses are not keen on PD, because it is taking money away from them. But PD is there, it is a fact of life, and they have simply got to learn to live with it.
AA: What bit of advice would you give to somebody wanting to open a PD library?
AC: Think about it. Setting this sort of thing up takes a lot of hard work, and you aren't going to make a fortune out of it.
AA: What are your favourite commercial and PD games?
AC: *Arkanoid, Klax, Stockmarket* and *Advanced Pinball Simulator* are all good. As for PD, I could not pick out a favourite, because it would be detrimental to the others.
AA: Do you do any programming yourself, and if so, what have you done?
AC: I do only very limited programming. I have, however, co-written a program to completely run a 10-pin bowling league which includes scores, points, averages, handicaps, the whole caboodle. I did that because I am the president of two leagues and our local bowling team.
AA: Did you know that I have a Midus Touch, except it jinxes things and people?
AC: I had heard about that, but I tend to reflect things, like a mirror!

You can write to Arthur Cook at: King Arthur's Domain, Brympton Cottage, Brunswick Road, Worthing, West Sussex, BN11 3NQ.
If you want a copy of the catalogue, send a disc (3-inch or 3.5-inch) and an SAE.



Gauntlet – does it fit like a glove?

backdrop is black which contrasts with green platforms, transparent blue birds, and a fat little yellow man that you control. This was one of the old ones that was half decent.

Chuckie Egg II isn't bad. Basically it involves running around the chicken pen collecting eggs. On the later levels (which are exactly the same as the earlier levels) a big yellow bird like the one from *Sesame Street* is let loose on you.

Overall, this is a pretty good sort of game. Again, there is no exact PD equivalent, so I'll call it a draw again. PD has so much that never even features in commercial software.

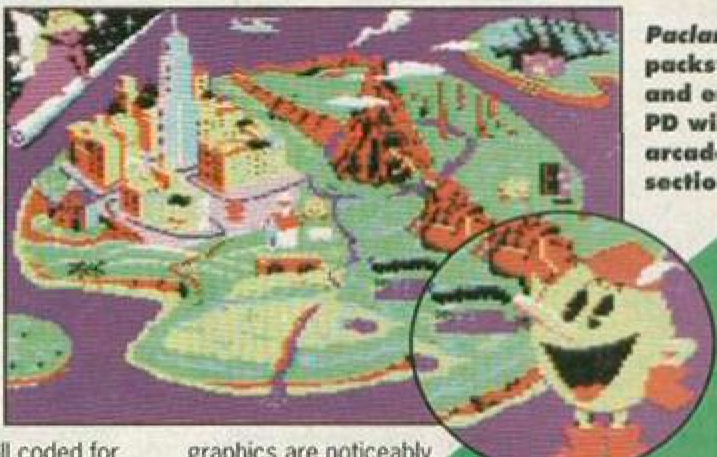
Surely *Fluff* is the best game the Plus has ever seen? Maybe, maybe not. The graphics, however, are top-notch; the animation is smooth and scrolls well and the tune is quite good although there are no sound effects. The gameplay is wonderful, the plot, though, could be better.

Fluff cannot be heralded as a game, but a creation. Well, if Rob Buckley (the *Fluff* programmmer) is God then he has a few more miracles to perform... There are a few bugs in the program, some of them good. But he tried to fob me off with an excuse about it being so well coded for other effects that something had to give. Yeah, right!

Commercial wins this one; PD just cannot compete. I would also like to add that I have played all three *Sonic the Hedgehogs*, in all their different forms, and I still reckon *Fluff* is better, even without a two-player mode. Maybe *Fluff 2* could rectify this (and include a scoreboard, too).

MegaBlasters is, another wonderful game. This one comes from Germany. Is it a *Super Bomber Man* clone? Maybe the SNES edition copied it from us? No matter this game comes on two discs and contains something like 1Mb-worth of action, adventure and mystery.

Some of the graphics are noticeably sub-standard, but most of them, especially the



Pacland packs'em in and ensures PD wins the arcade section.

What's PD?

PD is short for Public Domain. It basically means that people write software for fun, for other people, and for the good of the machine. They then submit this work into the Public Domain sector. Here, there are libraries which collect these programs together, as a service, for which they (usually) charge a small copying fee, normally no more than a pound. This software is free for anybody to copy it as often as they like. There are loads of PD libraries around, check the Amscene Directory (see page 4).

Shareware is a similar thing, except that you send money to the programmer if you use the program. This is more usual on the PC and the Amiga than on the CPC.

For the best, and the latest in the public domain section, check out Keith Woods' Public Image on page 6.

Would you like to play?

Now we've told you about all these games you want to get your hands on them, right? Well, here's your chance... Simply answer the question below on a postcard or back of an envelope, state whether you can take tape/disc/cartridge, and send it to: I want a game, *Amstrad Action*, Future Publishing, 30 Monmouth Street, Bath, Avon, BA1 2BW to arrive before Thursday, 23 February, 1995.
Question: which techie bod wrote the soundtrack for *Fluff* and which CPC magazine does he write for?
Difficult, isn't it?

frosty, ice world, are quite exceptional.

The music is pretty good, some of which you will recognise from the charts. This is a game for one to four players, in two different game types.

Honestly now, what more could your CPC possibly ask for next Christmas? Commercial must definitely win this one.

Just like the real thing?

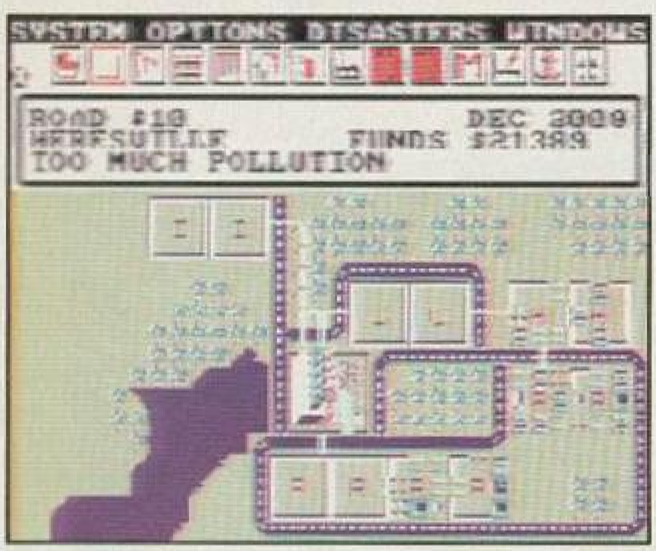
The simulator is a genre that must have had its day, with *Fruit Machine* and *Rally* sims all over the shop. But strangely not. Anybody remember *Stockmarket*?

What a game! Your chance to make a million from dealing in metal shares! *Sim City* keeps us on this same money-making scheme. Build a city, please the citizens and make loadsa dosh.

The graphics are bearable, but the movement is slow. It is the gameplay which grips, but even that can sometimes be dull.

Asset is one type of inferior *Stockmarket*-like game in PD. It's not as good. What is good, however, is a game called *Mag-Edit*. You can get to be editor of *Amstrad Action* and see if you can pull in the punters (*I prefer 'be of service to the readers' – Ed*). Similar commercial games are *Software House* and *Software Star*.

Really, commercial could win this one, because of the sheer volume of stuff made, and because most of it is more in-depth than PD. However, as both gave a good effort, I think this is a draw, too.



Sim-ply the best? *Sim City*: about making money which, believe or not, can be dull.



***MegaBlasters*: outselling *Fluff* despite the £6 price difference.**

Look who's talking

I must be more famous (and lively) than Terry Wogan for my interviews. No sooner do I interview someone, then they leave the CPC scene. (*A certain member of the Tory party would be a good subject – Ed.*) (*Make that the whole Tory party – Ed.*)

However, I decided to go and jinx two more unsuspecting people, anyway, in the guise of asking what they thought about the current PD and commercial scene...

I spoke to Richard Wildey of Sentinel Software, (see the Isn't that a bit Rich? box on page 12) and Arthur Cook of King Arthur's Domain (see the Just Arthur minute of your time, box on page 13), about their views on commercial and PD software...

Richard said that PD is a great place for programmers (and programs) to start out. A game called *Doom* was released into Shareware. It did very well so the owning company decided to release what turned out to be *Doom 2*, commercially.

Crafty? Maybe. It's a good way of testing the water (that's what Richard was trying to say), and it certainly worked in this case.

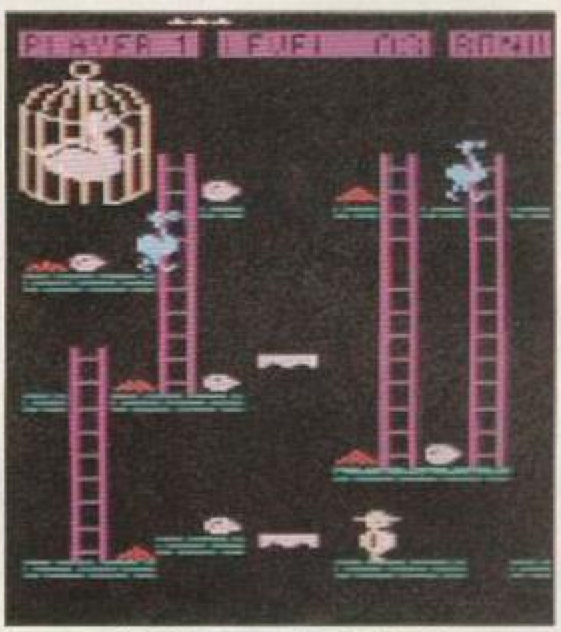
It's so unfair...

Over these four pages we looked at some games and some of their PD equivalents. Commercial software, on the whole, seems to have the better graphics, gameplay, sonics and general, 'oomph'. But are they too expensive?

Think for a moment... What price did you pay for the games you used to be able to buy in Woolies? It was around £14.99 per disc. The better the game, the more extortionate the price.

Recently, the game *Who said that?* was released priced £13.95. Some people thought this was excessive. *MegaBlasters* costs £13.99, but it does come on two discs and possibly, therefore, represents better value? When *Lethal Moves* is released (see the Radical Moves box), it is likely to be a two-disc game priced around £14. *Star Driver* and *Masters of Space* were cheaper at a tenner, but were the games as good as those just mentioned?

At school we were taught that if you drop your price you sell more and subsequently make a bigger profit. That was the theory not the practice. Think about *Ball Bearing*. At £5.95 it is cheap and very playable. At £7.95 Fluff (Plus only) beats the socks off *Sonic* (in my opinion). Therefore, these games, by being cheaper, should have sold more and made Radical Software a larger profit. This was not the case. *MegaBlasters* sold than more copies in two months than *Fluff* has sold in nine.



A case of which came first? *Chuckie* or the egg? PD can't compete with this.

So, what about PD?

It is very cheap. You often get a whole disc packed with software for about £1 which is one-fourteenth the price of *MegaBlasters* and probably ten times less than the games. So why is PD not as popular? Why aren't PD fanatics banging down the doors of KAD and other good libraries? Because most PD is 'not of broadcast quality' as the BBC would say. Some games, *Worm Slickers*, by Facehugger, for example, can offer a few hours' entertainment but, generally, PD lacks the essential excitement and versatility of commercial games.

Stick with the few commercial games that are still available, give them your support, and look at PD as an added bonus, not a gap filler.

Where are they at?

Try the following or check out the ads in *Amstrad Action*:

Capri Marketing Limited
☎ 0628 891022/891101

OJ Software
☎ 0257 421915

Radical Software
☎ 0903 206739

The Trading Post
☎ 0952 462135

Radical Moves

***AA*'s own Rob Buckley is currently sprucing up *Lethal Moves*. It should be ready in the spring and include some outstanding graphics, gameplay and opptions.**

Look out for a full dissection and discussion of Lethal Moves in *AA* soon.

Reader ads

If you *like* getting up at 4.30 on a Sunday morning and hanging around a muddy field to beat the scrummage at the car boot sale do! If not, try the *AA* Reader ads *first*. They are here for you.

WANTED

Prince of Persia, will buy or swap. ☎ 01223 3122450 or write to Bence, 46 Grantchester Road, Cambridge CB3 9ED.
Jack Nicklaus Golf on cassette for CPC464 for cash. ☎ 01384 370518.
Dead or dying 6128+ wanted. Spares or repair, reasonable condition as long as all bits are there and intact. M Wilkinson, 26 Northumberland Ave, Newbiggin-by-the-Sea, Northumberland NE64 6RJ ☎ 01670 856109.
Wanted for Spectrum Football Director or Football Director two or the double two. Ray ☎ 01705 610772.
Aliens disc, boxed with all instructions, will pay up to £9 for good condition. Peter ☎ 01275 817627 (6pm-7.30pm).
GAC (Graphic Adventure Creator) and manual (tape). Anton ☎ 01803 832352 urgently. All reasonable offers considered. Hillside View, Old Mill Lane, Dartmouth TQ6 OHL.
Lemmings for the CPC 464+ on tape. Will swap for Dizzy Panic, Ninja Warriors, She Vampires, T-Bird or Grand Prix 2. 83 The Crescent, Chester-le-Street, Co Durham DH2 2DY.
Any serious utilities wanted – cash or exchange. Also MP-3 and Video Digitizer – Kit-Form okay if complete. ☎ 01952 401462.
CPC6128 keyboard (disc drive) unit. George, The Slade, Boughspring, Chepstow, Gwent NP6 7JL.
GAC beginner requires the GAC manual, must be in gc, will pay £2. Donal McBrien, Corratistune, Derrylin, Enniskillen, Co Fermanagh, N Ireland BT9 29EE.
Hero Quest and Witch Lord Expansion and Space Crusade. Will swap for Lemmings and Turtles. All boxed, on disc with instructions. Donal McBrien, Corratistune, Derrylin, Enniskillen, Co Fermanagh, N Ireland BT9 29EE.
Scrabble De-Luxe disc for 6128. Owen ☎ 01703 862628, 10 Jennings Road, Totton, S Oton S040 3BB.
Freddy Hardest on disc. Will pay, or swap for Rock'n'Roll. I will buy for £8 or under. Ian ☎ 01295 670513.
Help! I need SimCity, Dr Dooms Revenge and Snow Strike for CPC464 cassette. I will pay £5 for each. Please help me!!
Wanted for 464, (tapes only) Sorcery Highway Encounter and Chess games. Mrs Gibbs, 3 Wood Field Drive, Sawtry, Huntingdon, Cambs PE17 5TZ.
Does anyone out there have Annals of Rome (disc or tape), for sale? Good price paid. Phil Ramsay, 12 Naseby Avenue, Blackley, Manchester M9 6JY.
Treble Champions/British Super League cassettes for the Amstrad CPC464 wanted. Arundel Close, Ryde, Isle of Wight PO3 31BS.
SimCity on disc for 6128 with manual. Will pay £10. Ian ☎ 01202 887418.
Needed now! All PD available. Send PD on 3-inch disc or tape with a SAE for return. J Cunningham, 10 Lapwing Lane, Norton, Cleveland TS20 1LT.
Abba switch for an Amstrad CPC6128 wanted desperately. Will pay £5-£10. Jonathon ☎ 01663 744863.
8-bit printer port wanted for Amstrad CPC6128 around £15. Ray ☎ 01203 362063 (Coventry).
Spy vs Spy one, two or three. Will pay £2-£3. ☎ 01733 208245. 119 Eastrea Road, Whittlesea, Peterborough PE7 2AD.
LocoScript Professional Software for the PC1512SD. ☎ 0131 229 8293.
Jack Nicklaus Golf, will pay cash or swap for eight games, including Head over Heels, Arkanoid, Wizball, Short Circuit... Mark Payne ☎ 01527 403813.
Lemmings on tape wanted for Amstrad CPC464, will pay £2.50. Vivian ☎ 01446 794355.
Second Disc Drive, secondhand, reasonable condition. I will give selection of games, including The Duel, Stunt Bike and covertapes 33 and 35. ☎ (weekends) 01828 640483.
Manual for Amstrad DMP 2000 printer. P L Bailey, 11 Earlsgate gardens, Winterton, Scunthorpe, South Humberside DN15 9TN, ☎ 01724 735149.
Elite for CPC464, will buy or swap Tall Ceti, New Zealand story and Saboteur. Stuart ☎ 01524 859260 after 5pm.
Pipeline software, games and utilities wanted. Mine have corrupted! Also selling 3D construction kit, my type-ins, and other cassette games. Nicholas ☎ 01283 541716.
Video and Music PC. Like your home-made videos or music tapes to be sold all over Britain? I'll swap, buy anything. ☎ 01259 731518.
Desperately seeking SimCity to restore domestic harmony. Can you help? Terry ☎ 01634 814501.
Chart Attack compilation on disc, will pay £4-£12. Or Switchblade on cassette or disc, will pay £4. Nandan ☎ 01704 576795.
Early *AA* mags, I need 2, 13, 18 and 22. Best price plus return postage for clean copies. I have 6 and 10 plus ACU Nov 1990 for exchange. George Burton ☎ 01332 751657 (after 6pm).
Eprom Programmer with disc software, prefer Microgenics, but others considered. Trevor ☎ 01482 878949.
BAT adventure game as reviewed in *AA*68. Will buy for £8 or swap six tape games. Jordan ☎ 01674 830534 (4-7pm).
I want your PD adventures, 178k for just one adventure. Come on, what do you have to lose? Moonshine PD, 19A Kenyon Avenue, Garden Village, Wrexham, Clywd, LLII 2SP.
SuperCalc 2 wanted for Amstrad 6128. Can you help? Alan Hall ☎ 01454 773343 (Bristol area).

AMSTRAD ACTION FREE READER AD FORM

Want some software? Want to get rid of something? You're in the right place. Fill in the details in the box below - one word to one box - and send it to: Reader Ads, *Amstrad Action*, 30 Monmouth Street, Bath Avon BA1 2BW.

Your name ______________________

Your address ______________________

____

____

Post code ______________________

FOR SALE

Amstrad 6128 Plus with colour monitor, games, joypad £120 ono. Waseem ☎ 01484 518416. (Huddersfield). Buyer collects.
Lots of CPC goodies Protext with manual, database, Amscalc, new 3-inch diskettes, other software (disc and tape), joystick, 100 games, diskette box and dust cover. Colin ☎ 01621 741891.
CPC6128+ with colour monitor, model CM.14 stereo, keyboard, utilities disc, manual, joystick. VGC. £100 ono. Phil ☎ 0181 292 5584 (after 6pm). Enfield.
Amstrad computer magazines, 82 in total (75 Amstrad Actions), some with cover tapes. Also four Amstrad computer books, all very good condition, but no splits. Bargain – £40. ☎ 01226 207693 (Barnsley).
Seirosha quality printer, SP180/VC for sale or exchange, or part exchange with Multiface 2, ROMboard, Video Digitizer, or any serious components/utilities for 6128/464. ☎ 01952 401462.
Amstrad CPC464 colour monitor, keyboard, over 100+ games, 2 joysticks, Amstrad user manual, all VGC, including computer desk – £100 ono. ☎ 01602 326476 (Ilkeston).
Amstrad 6128 colour, manual, Multiface 2, tape recorder, lots of games, discs and tapes – £150. ☎ 01509 230403.
Disc version of Lemmings. Works perfectly, full instructions, boxed – £16. Cheques payable to Martin McBrien. SAE to Donal McBrien, Corrastistune, Derrylin, Enniskillen, Co Fearmanagh, N Ireland BT92 9EE. Also Turtles boxed – £11.
Games for sale! Some on tape, some on disc. All at the lowest prices around! SAE to Donal McBrien, Corrastistune, Derrylin, Enniskillen, Co Fearmanagh, N Ireland BT92 9EE.

Assembly line

CPC games use vertical and horizontal sprite flipping to cut down on duplication of data. Rob Buckley follows last month's routine with a final look at sprite data and how to manipulate it to save you time and memory.

Due to lack of space last month I skipped one of the machine coder's best friends, the look-up table. Sprites, with their reams of data and various width and height sizes, mean that you need to know quickly where you can find a precise bit of data, and for this look-up tables are the perfect structure.

The standard table contains essential information such as the address of the first byte of sprite data, with the height and width, and is normally located at the start of such data. It might also contain data referring to rotating/flipping the sprite, or the address of the last byte, and so on.

Such a table shows just one four-byte location, which is repeated in a list for every possible sprite. This means that for 32 sprites you have 32 list slots of four bytes each which gives you 128 bytes. To access the table try using the code in Listing One. (A needs to contain the sprite number.)

You now have all the information you require from the sprite to able to place it on the monitor. (See Listing Two.)

The routine in Listing Two is a very simple sprite pusher. You can easily display a sprite upside down. You just need to change:

- the CALL #BC26 (firmware call for Down one pixel) to CALL #BC29 (call for Up one pixel)
- HL to height pixels further down the screen because the sprite starts from the bottom upwards rather than from the top downwards.

However, you can't do this using the sprite routine from last time because it only works from the top down and a similar approach with flipping horizontally is very slow because flipping the bytes around doesn't work.

Due to the way the CPC screen is mapped each byte displays information for either two, four or eight pixels depending on the mode, so even though you have moved the flipped bytes the contents also need to be flipped. Use the method that is shown in Listing Three in the box below.

Since, for most programs, this would be too slow in repetitive use you need another approach to flipping the sprite when you want to display it, namely converting it once, overwriting the original, and converting it back when you need it. You can do this because you normally have a sprite going one way or the other at any given time, unless you have two copies of the same sprite on screen at once.

Listing Four shows a routine which reverses a sprite specified by register A. Use the small routine in Listing Five to call the flip sprite routine.

To invert a sprite you use a rather different method. You use the next address on the look-up table to give you HL as the end of the sprite minus the width to put you at the start of the last line on that sprite. However, once you successfully copy a line from the top and bottom you have to reduce HL by two lines. See Listing Six.

To use the invert sprite routine load A with the sprite to invert, and call Invert Sprite. You can display any sprite using last month's sprite program reversed, upside down or together.

Next month I show you how to convert normal rectangular sprites into Kim Basinger-shaped sprites. Then again maybe I won't.

LISTINGS

Please note: the lines in brackets and italics are not part of the code – they are for reference only.

Listing One

```
SpriteFind: LD
HL,Start_Sprite_Table
ADD A
(Two ADD A times A by
four.)
ADD A
LD E,A
LD D,0
ADD HL,DE
(HL now contains
location of lookup
data.)
LD E,(HL)
(Loads DE with Start
of sprite.)
INC HL
LD D,(HL)
INC HL
LD C,(HL)
(C is height.)
INC HL
LD B,(HL)
(B is width.)
RET
```

Listing Two

```
Sprite
(Requires HL to
contain Screen
Address , DE & BC to
come from
SpriteFind.)
PUSH HL
LD A,B
LD (st),A
Loop
LD A,(DE)
CP 0
JP Z,Skip
LD (HL),A
Skip
INC DE
INC HL
DJNZ Loop
POP HL
CALL #BC26
LD A,(st)
LD B,A
DEC C
LD A,C
CP 0
JP NZ,Sprite
RET
```

Listing Three

```
ReverseByteMode0
(A contains the byte
to be reversed.)
LD B,A (Temporary
store.)
RRA (Shift A right.)
AND %01010101
LD C,A (Store result
in C.)
LD A,B
RLA (Shift A left.)
AND %10101010
OR C (Merge result &
C together.)
RET (A now
contains reversed
byte.)
```

Listing Four

```
FlipSprite
PUSH BC
PUSH DE
LD A,B
LD (st),A
SwapByte
LD A,(DE)
LD R,A
RRA
AND %01010101
LD C,A
LD A,R
RLA
AND %10101010
OR C
LD (HL),A
INC DE
DEC HL
DJNZ SwapByte
LD A,(st)
LD B,A
POP DE
Paste
LD A,(HL)
LD (DE),A
INC DE
INC HL
DJNZ Paste
POP BC
DEC C
LD A,0
CP 0
JP NZ,FlipSprite
RET
WorkSpace:DS 80
```

Listing Five

```
LD A,SpriteNumber
CALL SpriteFind
(Returns DE with
Start, B width & C
height.)
LD HL,WorkSpace+80
(Space to put
temporary data.)
CALL FlipSprite (Call
routine.)
```

Listing Six

```
InvertSprite
CALL SpriteFind
PUSH DE
INC HL
LD E,(HL)
INC HL
LD D,(HL)
EX DE,HL
LD E,B
LD D,0
SUB HL,DE
LD A,C
RRA
AND %1111111
LD C,A
POP DE
Loopy
PUSH BC
CALL SwapLine
POP BC
DEC C
LD A,C
CP 0
RET Z
PUSH DE
LD E,B
LD D,0
SUB HL,DE
SUB HL,DE
POP DE
JP Loopy
SwapLine
LD A,(DE)
LD C,A
LD A,(HL)
LD (DE),A
LD A,C
LD (HL),A
INC HL
INC DE
DJNZ SwapLine
RET
```

Basically basic

Angela Cook and Rob Buckley cover STRINGs. Why? To prevent you tying yourself in knots over 'em, of course. Oh, and because the editor told them to... Or else!

STRINGs, for the uninitiated, are BASIC's way of representing characters, words, and sentences. So if you can't string a sentence together read on (*Is that meant to be funny?– Ed*).

Computer language is made up of numbers meaning that unlike common numeric variables BASIC handles STRINGS in a very different way. In BASIC each character, which forms part of a word or sentence, is represented in the machine by a number, for example, "A = 65", "h =104"

By putting a STRING of numbers together, you can, seemingly, create words. Why not try the short program below? This program allows you to type a character which then shows its machine (or ASCII) value.

```
MAEJ 10·INPUT·"Enter·character";a$:PRINT·ASC(
     a$)
```

In the above listing, note that you use the dollar sign to show that a variable is a STRING. This is so that BASIC can differentiate between it and a normal numeric variable. You can now create STRINGs of up to 255 characters. Using the same method that BASIC uses for numeric variables. For example:

```
JAAF 10·a$="Hello·and·how·are·you?"
BBFC 20·b$="This·will·print·a·copywright·symb
     ol·"+CHR$(164)
DAHG 30·PRINT·a$,b$
```

To print these on the screen you use PRINT A$,B$ as you would normally. Notice that I have used a "+" symbol above, which is something you would normally assume you could only use with numbers. However, in this instance it means "PLUS" rather than "ADD". For example, "AMSTRAD "+"ACTION"="AMSTRAD ACTION" Whereas, 10+30=40 This, however, does not work with any other function like multiply or divide, so beware! By using the program, right, you can create some rather amusing (*and unamusing – Ed*) results.

```
EANP 10·DIM·a$(7),b$(7),c$(7)
HACK 20·FOR·f=1·TO·7:READ·a$(f):NEXT
HAEK 30·FOR·f=1·TO·7:READ·b$(f):NEXT
HAGK 40·FOR·f=1·TO·7:READ·c$(f):NEXT
CBMG 50·DATA·"Angela","Karen","Dave","Richard
     ","Keith","Rob","Debbie"
GBOE 60·DATA·"walrus","beans","CPC","turnip",
     "cabbage","bird","space·shuttle"
JBIE 70·DATA·"watcher","sniffer","juggler","p
     erson","fanatic","athlete","suporter"
ABCE 80·PRINT·a$(INT(RND*7)+1)+"·is·a·"+b$(IN
     T(RND*7)+1)+"·"+c$(INT(RND*7)+1)
HAAF 90·FOR·f=1·TO·500:NEXT:GOTO·80
```

The above program, although crude, could, with care and careful programming (*make a full recovery? – Ed*) be built up to produce limitless numbers of sentences which make sense. This is, in a way, very similar to how adventures are programmed. (See next month's *Amstrad Action*.) You can make this more personal by putting in your own names and variables.

BASIC, however, doesn't just let you put characters and words together. You can, using a function called MID$, inspect STRINGS and take what's required from them, for example: B$"Hello and how are you?":PRINT MID$(B$,7,3)

This extracts the word "AND" from the sentence and prints it. To use this function, first supply the STRING variable (B$) then the character at which to start (the seventh along) and lastly how many characters to take (three). Using both MID$ and "+" you can virtually alter a STRING in any way. The next small program reverses a STRING so that it reads backwards.

```
IALO 10·INPUT"Enter·String";a$:b$=""
MAJL 20·FOR·f=LEN(a$)·TO·1·STEP·-1:b$=b$+MID$
     (a$,f,1):NEXT
CAGL 30·PRINT·b$
```

The LEN() in line 20 produces the number of characters in any given STRING, for example, IF A$="Hello" THE LEN(A$) would be five.

Lottery bonanza

Let's face it, the country has gone lottery crazy. So, due to demand, *Amstrad Action* is giving you a surefire way to win – with the AA Lottery Numbers program. Good luck! and don't forget who it was that told you...

```
LAFG 10·MODE·1:W=0:DIM·A(49):FOR·F=1·TO·49:A(
     F)=0:NEXT
IBIB 20·PRINT:PRINT"Press·Any·Key·When·You·Ha
     ve·Your·Pen·And·Paper":PRINT:CALL·&BB18
DAHF 30·FOR·F=1·TO·6
LAHD 40·A=INT(RND*49)+1:FOR·G=1·TO·6:IF·A(G)=
     A·THEN·40
BAEM 50·NEXT
DAFF 60·A(F)=A:NEXT
GBCM 70·B=0:FOR·F=1·TO·6:B=B+A(F):NEXT:b=b/6:
     IF·b<23·OR·b>27·THEN·FOR·f=1·TO·6:a(f)=0
     :NEXT:GOTO·30
NAFJ 80·FOR·f=1·TO·6:PRINT·a(f);"··";:FOR·g=1
     ·TO·500:NEXT·g,f
```

Next Month

Venture a step further to produce a simple adventure game (although nothing as superb as Eve of Shadows – Ed), which, in the words of Neil Armstrong, will be: 'One small step for man, one giant leap for a gerbil'.

Typing Listings

- **Make sure you type in exactly what we print**
- **OMIT the first four letters in each line. They are a code which works in conjunction with our *TypeChecker* program below.**
- **Only press RETURN when you get to the end of a command line. If a command line goes on to two lines don't press RETURN at the break. Your lines on screen should break in the same place as in the mag.**
- **The dots you see in some lines (like the one between 'well' and 'done' in the line PRINT|Well·done|) indicate spaces. The number of dots tells you how many spaces.**

TypeChecker

This program enables you to check whether you've typed *AA* listings in correctly. Type it in, then SAVE it for future use. When you want to doublecheck that you typed a listing in correctly:

- **load up *TypeChecker*;**
- **type NEW;**
- **type in the listing of your choice;**
- **when you have finished type LIST.**

At the end of every line a highlighted code appears. It should be the same as the code printed in front of the same line in *AA*. If it isn't you have typed that line incorrectly.

```
PAML 10·'·TypeChecker·V1.0·-·By·Simon·Forrest
     er·-·Dec·1992
MAOJ 20·'·For·Amstrad·Action·-·Public·Domain
DANK 30·MEMORY·&9FFF
CAJK 40·csum=0
GAME 50·FOR·addr=&A000·TO·&A05B
DAKJ 60·READ·byte$
GAJB 70·byte=VAL(_&|+byte$)
FACF 80·POKE·addr,byte
GAFB 90·csum=csum+byte
DALK 100·NEXT·addr
OACI 110·IF·csum<>&2ADD·THEN·PRINT·|Checksum·
     Error|:END
LAHE 115·POKE·&A001,PEEK·(&BB5B):POKE·&A002,P
     EEK·(&BB5C)
XAHI 120·POKE·&BB5A,&C3:POKE·&BB5B,&3:POKE·&B
     B5C,&A0
MACN 130·PRINT·|TypeChecker·V1.0·Installed|:E
     ND
MABC 140·DATA·CF,FE,93,FE,0A,CA,00,A0,F5,C5,D
     5,E5,FE,0D,CA,22
LACJ 150·DATA·A0,5F,16,00,2A,5A,A0,19,22,5A,A
     0,E1,D1,C1,F1,C3
LAFJ 160·DATA·00,A0,3E,20,CD,00,A0,3E,18,CD,0
     0,A0,2A,5A,A0,7C
LADI 170·DATA·CD,45,A0,7D,CD,45,A0,3E,18,CD,0
     0,A0,21,00,00,22
LACN 180·DATA·5A,A0,C3,1B,A0,F5,E6,0F,C6,41,C
     D,00,A0,F1,E6,F0
KAJC 190·DATA·1F,1F,1F,1F,C6,41,CD,00,A0,C9,0
     0,00,END
```

Turning TypeChecker off (it is automatically initialised when you RUN the program above) and back on again is quite simple:

POKE &BB5B,0 turns it off, while,
POKE &BB5B,3 turns it back on.



Cheat mode

Another month, another cheat mode. Mastercheater Lee Rouanne asks: is there no rest for the wicked?

Empire

J (Juggernaut, Jellybean, Jam?) Brandon in Blackley, starts the ball rolling with a plea for *Empire*.

He swears that there are no cheats available, but here at Cheat Mode, we aim to prove that no game is to be spared the code-busting treatment. Here's the poke then, and just for the record, it was penned by the able hands of Mike Wong.

```
GADG 10·▼Empire·Tape·Poke
EAHM 20·▼(C)·Mike·Wong
AAKK 30·▼
FAGF 40·MEMORY·&3DFF:MODE·1
EACP 50·WINDOW#1,15,27,10,10
EAKP 60·WINDOW#2,15,27,13,13
EAOJ 70·LOAD|empire1|
DALK 80·POKE·&3E68,&C3
DABE 90·POKE·&3E69,0
DAOO 100·POKE·&3E6A,&BE
FAGH 110·FOR·n=&BE00·TO·&BE3B
FAKJ 120·READ·a$:a=VAL(_&|+a$)
EAHM 130·POKE·n,a:c=c+a
GAIJ 140·NEXT:IF·c<>5585·THEN·260
EABA 150·CALL·&3E00:END
FABM 160·DATA·32,46,a5,3a,32,a5
FAPP 170·DATA·fe,2e,28,02,14,e9
FAAM 180·DATA·e5,21,3a,01,36,c3
FALJ 190·DATA·23,36,26,23,36,be
FAEG 200·DATA·21,68,3e,36,32,23
FAGJ 210·DATA·36,46,23,36,a5,e1
FAAM 220·DATA·14,e9,21,32,be,22
GAKE 230·DATA·a3,01,3a,37,bd,c3
FALP 240·DATA·3d,01,af,32,e9,49
FAJM 250·DATA·32,ff,49,c3,00,80
GAOC 260·PRINT|Error...|:END
```

Doing it the multiface way

The (T)s and (D)s before the address indicate whether the poke was written for a tape or disc game (they might work on both, it's worth a try). Here are the steps to success...

A> Load the game as normal.
B> Press the RED button on the MULTIFACE.
C> Press "T" for tool.
D> Press "*" to make sure you select the code.
E> Press "H" for HEXADECIMAL input.
F> Press "SPACE" for input.
G> Type in the ADDRESS (four characters, for example, 3A7C).
H> Type in the POKE (two characters, for example A7).
I> Press "RETURN".
J> If there is more than one poke goto (F).
K> Press "ESC" back to the menu.
L> Press "R" to return to the game.

Zap T Balls

Regular Cheat Moder, Carl Thomas, (yup, him, again) supplies us with some nifty passwords for that graphical stunner, *Zap T Balls*.

World Of Fire

2 – YEM	4 – ITS	6 – IHT	8 – SDR
10 – AWK	12 – CAB	14 – TID	16 – NEW
18 – OTE	20 – VAH	22 – OUY	

Dream World

5 – WAK	10 – EUP

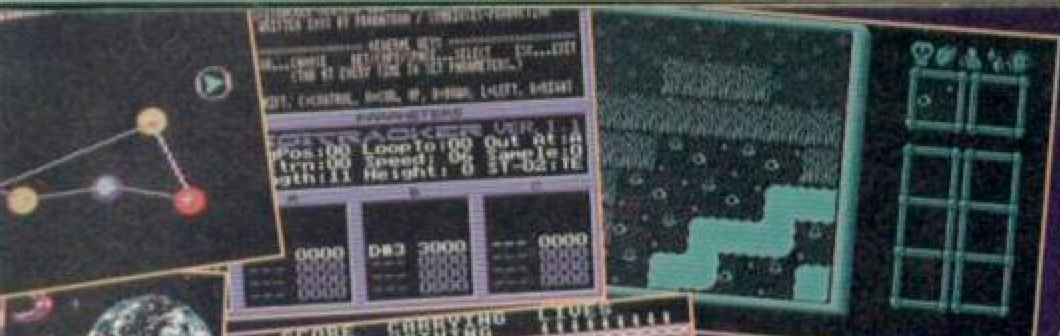
This game uses an AZERTY keyboard,so if the password contains an A, replace it with a Q. If a password contains a W, replace this letter with a Z.

Netherworld

Room enough to put in this poke for an old favourite: *Netherworld*. Not a request, just a brilliant cheat.

```
1 ▼ Netherworld |tape|
2 ▼ By Graham Smith
3 ▼ Choice of:-
4 ▼ Extra time
5 ▼ Infinite energy
6 ▼ Infinite lives
7 ▼ Infinite brick smashers
8 ▼ Infinite demon killers
10 DEFSTR a:MODE 1:z=1
20 FOR j=0 TO 95:READ a
30 x=VAL(_&|+a):y=y+x
40 POKE j+97,x:NEXT j
50 IF y<>8159 GOTO 430
60 a(0)=|Extra time|
70 a(1)=|energy|
80 a(2)=|lives|
90 a(3)=|brick smashers|
100 a(4)=|demon killers|
110 j=0:GOSUB 200
120 FOR j=1 TO 4
130 GOSUB 190:NEXT j
140 POKE 96,t
150 MEMORY 16319:LOAD|
160 POKE 16731,97
170 POKE 16732,0
180 CLS:CALL 16320
190 PRINT|Infinite _;
200 PRINT a(j);| ?|,
210 a=UPPER$(INKEY$)
220 IF a=|N| GOTO 250
230 IF a<>|Y| GOTO 210
240 t=t+z
250 PRINT a:PRINT
260 z=z*2:RETURN
270 DATA f5,e5,21,32,04,22
280 DATA f6,28,21,65,32,22
290 DATA f8,28,21,05,65,22
300 DATA fa,28,3a,60,00,67
310 DATA 3e,3c,32,f5,28,cb
320 DATA 44,28,14,af,32,17
330 DATA 18,3d,32,19,18,3d
340 DATA 32,1e,18,7c,21,3e
350 DATA 09,22,1b,18,67,cb
360 DATA 4c,28,0a,3e,c9,32
370 DATA ce,25,3e,c3,32,d5
```









```
380 DATA 26,cb,54,28,04,af
390 DATA 32,bf,27,cb,5c,28
400 DATA 04,af,32,74,21,cb
410 DATA 64,28,04,af,32,28
420 DATA 23,e1,f1,c3,00,01
430 PRINT| DATA ERROR|
```

B.A.T.

Here is a special treat for all space freaks. Your friend and mine, A.C Gales (I hate initials!) gives us the ultimate guide to the game of the galaxy, *B.A.T* (more initials). This works only for the disc version so, sorry, tape owner(s) !

1 Go to the W.C (*Grrrr! – Lee*), go past the urinals and collect the hologram from the agent.
2 Leave the hangar, search environment, pick up steak and chips.
3 Go to Astroport Square and then on to the Exchange Centre.
4 Change 1000 credits. Return to Astroport Square.
5 Catch cab to Central Junction then go on to the Medical Organisations.
6 Go to 'street like many others' (1), then go to 'street like many others' (2), (disc side 4)
7 Go to the Administration Buildings
8 Enter Hotel. Talk to the Receptionist. Book room.
9 Enter your room. Search environment. Pick up Permit.
10 Return to Astroport Square and catch cab to Central Junction.
11 Go to the door of the North Airlock and then on to the start of A-312.
12 Enter the amusements (disc side 3) and accept challenge for Bizzy game. (Read a book while the other player goes first!)
13 Write down the shapes in order to keep winning the game.
14 Keep on playing the Bizzy game until you have amassed at least 6000 krells.
15 Stop playing and accept the guide that is offered (provided you have won, however).
16 Search the bar environment and pick up everything.
17 Return to the door of North Airlock (disc side 2) and enter the Gunsmith's.
18 Sell all guns accept the Lance Nova. Buy munitions, including at least five battery novas.
19 Return to the door of North Airlock (disc side 3) and enter North Airlock.
20 Talk to the man and write down the information code on Scoutship Epsilon, it should be a random series of Ls and Rs.
21 Enter North Airlock and go to the drag pilot. Pay him 5500 krells.
22 Fly the drag to Epsilon Station and check Health meter.
23 Eat hydraters and energy pills. Sleep until the sleep warning light disappears.
24 Take the right passage on arrival and put the card in the machine.
25 Press the right and left buttons on the machine according to the code you collected in line 20.
26 You will now be attacked ! Select the only gun showing and point the cursor on the body of the man shooting at you.
27 Press fire button as quickly as possible until the man is dead (indicated by life bar on bottom left of the screen).
28 Congratulations ! You have just shot Vrangor !

E-Motion

Another request now, it's getting like One FM here, (*But, I bet we have a larger audience – Ed*) from Michael Goudman (again) in Penkridge. This time Michael wants us to share any cheat we might have for that brain teaser *E-Motion*. Shall we ?

Go on then, you little tinker, get a load of this...

```
HAMA 1·'E-MOTION·hacks·(disq)
FACH 2·'By·John·Girvin
FAEB 3·'September·1990
AALH 4·'
GACJ 10·OPENOUT| d| :MEMORY·&916F
EAAM 20·CLOSEOUT:MODE·1·
FALK 30·LOAD| !disk| ,HIMEM+1
FAPM 40·addr=&BE80:RESTORE
DAJJ 50·READ·byte$
IAOM 60·IF·byte$=| YAHOO| ·THEN·CALL·&BE80
HAOD 70·POKE·addr,VAL(_&| +byte$)
GAPE 80·addr=addr+1:GOTO·50
EAAB 90·'***·LEAVE·IN·***
GAEE 100·DATA·21,70,91,11,70,01,01,24
HAGN 110·DATA·04,ed,b0,3e,c3,21,9f,be
HAMJ 120·DATA·32,0e,bc,22,0f,bc,c3,70
HALE 130·DATA·01,a4,48,4c,46,09,5a,cd
IAKD 140·DATA·37,bd,af,cd,0e,bc,21,e7
HAMO 150·DATA·be,22,b7,9c,c9,f5,c5,d5
HAKL 160·DATA·e5,06,f5,ed,78,1f,30,fb
GANK 170·DATA·21,f9,4e,11,10,00,06,21
HAAB 180·DATA·3e,0c,be,20,01,72,19,10
HAMO 190·DATA·f9,e1,d1,c1,f1,c9,f5,c5
HANA 200·DATA·d5,e5,21,14,4f,11,0f,00
GADL 210·DATA·06,21,72,23,72,19,10,fa
HAMJ 220·DATA·e1,d1,c1,f1,c3,a5,0e,21
HAKC 230·DATA·ad,be,11,40,00,01,3a,00
HAGD 240·DATA·ed,b0,21,61,00,22,a3,0e
CAIL 250·DATA·af
GAIF 260·'Infinite·lives
DACL 270·DATA·32,87,2a
GABM 280·'Infinite·energy
FABD 290·DATA·32,21,13,32,29,13
HAFN 300·'Balls·don't·explode
DAHK 310·DATA·32,05,2e
GANE 320·'Pods·don't·grow
FAPA 330·DATA·3e,18,32,9e,38
IAKJ 340·'Remove·elastic·ropes
GANK 350·DATA·3e,c3,21,40,00,32,24,16
DANH 360·DATA·22,25,16
EABE 370·'***·LEAVE·IN·***
GAFB 380·DATA·c3,00,05,YAHOO,4a
```

Only cheats need apply

If they can do it, so can you. Who? Other *AA* readers. Do what? Pass on a cheat, of course. If it works you get instant fame and instant credibility. If it doesn't we'll set our art editor on you. Once he's converted you, laid you out and put you through the lino we promise, you'll never be the same again!

Send your pokes to Cheat Mode, Amstrad Action, 30 Monmouth Street, Bath, Avon BA1 2BW.

Multiface pokes

Grappling with the faithful red button this month are Carl Thomas and Paul Stuart Williams. Keep them coming lads! Why don't other *AA* readers try your hands? See Only cheats need apply, above right.

Game Name	Media	Poke, Addr	Effect
E-motion			
1329,00]	(T)		
2A87,00			Infinite Lives
2E05,00			Balls Don't Explode
389E,18			Pods Don't Grow
Striker & Crypts	(T)	47DF,00	Infinite Lives
		456C,00	Infinite Ammo (if life is intact)
		18B9,00	Full Ammunition Level
		18BB,01	Weapon = Spellactic Rocket
		18BB,02	Firebolt
		18BB,03	Protonstick

Game Name	Media	Poke, Addr	Effect
		18BB,04	Firecracker
		18BB,05	Sparklerspell
		18BB,06	Razerdisc
		18BB,07	Twinsting
		18BB,08	Tripik
		18BB,09	The Lost Spell
		18BF,10	Full Parchment Level
		18C3,10	Full Bonus Mushrooms
		18C5,10	Full Extra Life Mushrooms
Dizzy	(T)	751C,00	Invunerability
Blasteroids	(T)	2158,00	Infinite Credits
Robocop	(T)	3F22,00	Infinite Energy
Warcars	(T)	7995,00	Infinite Lives
Killapede	(T)	4A78,00	Infinite Lives
IK+	(T)	27BF,00	Infinite Time
Centurions	(T)	1B17,00	Infinite Energy

Alternative COMPETITION



More gifts than in a Christmas stocking, more choice than in a bran tub! Can you contain yourselves? One AA reader will win 15 of the exciting Alternative Software titles below, and three of you will win five titles each! So whaddya say to that, then?

To win just tell us what vampires eat. Then, send your answer on a postcard or the back of an envelope to arrive by Thursday 23 February, 1995 to In the neck, Amstrad Action, 30 Monmouth Street, Bath, Avon, BA1 2BW. The editor's decision is final. The competition is not open to employees of Future Publishing or Alternative Software. All prizes are in tape format.

4 Most Adventure
4 Most Fun
4 Most Horror
4 Most Sport
Acadamy
Andy Cap
Army Moves
Aussie Rules Football
BMX Ninja
Big Trouble Little China
Captain S
Championship Baseball
Championship Sprint
Classic Arcadia
Classic Arcadia II
Combat Zone
Confusion
Count Dracula
Crazy Erbert
Cricket International
Dandy
Dead or Alive
Endzone
Everyone's a Wally
Flight Simulator
Football Frenzy
Formula 1 Grand Pris
Freddy Hardest
Galactic Games
Game Over
Gee Bee Air Rally
Gilbert
Gold or Glory
Graham Gooch
Grid Iron II
Gunboat
High Steel
Hijack
Huxley Pig
Indoor Soccer
Jaws
Judo Uchi Mata
Kentucky Racing
Life Term*
Mad Flunky
Meganova*
Metalyx
Microball
Mini Office
Moon Cresta*
Munsters
Mystery Indus Valley
Neil Android
Official Father Christmas
Oink*
Operation Hormuz
Popeye
Popeye II
Postman Pat
Postman Pat II
Pro Mountain Bike
Punch and Judy
Rally Driver
Real Stunt Expert
Red Arrows
Revolver
Rex
Rik the Roadie
Rocky Horror Show
Rogue Trooper*
Rugby Boss
Run for Gold
Secret Diary of Adrian Mole
She Vampires
Slug
Smashed
Soccer Boss
Soccer Challenge
Sooty and Sweep
Spindizzy
Spitfire 40
Splat
Strike Force Cobra*
Strike Force Harrier
Superted
Tarzan
The Wombles
Theatre Europe
Thomas the Tank Engine
Trap Door Double Pack
Turbo Bike
Up for Grabs
US Aims
US Basketmaster
Vixen*
Who Dares Wins II
Wiz Biz

*These games are not available on their own but are included in a 4 Most compilation.

All games cost £2.99. For further information contact Alternative Software, Unit 3-7, Baileygate Industrial Estate, Pontefract, W Yorks, WF8 2LN ☎ 0977 797777

TECHY forum

Agony uncle he may be, but Richard Fairhurst is still waiting for TV advertising roles. Contact his agents care of *AA*. Be sure to have your credit card handy.

TOP TIPS

Beady-eyed monster

It's into Techy Overdrive mode here, as we ask: exactly what *does* happen at EMS?

The answer, of course, is: 'Er, what's EMS?'. EMS is short for Early Morning Startup, which refers to the state of your CPC when it's first switched on.

It's also the state to which routines such as MC START PROGRAM (&BD16), and the associated MC BOOT PROGRAM (&BD13), set the machine. However, there are occasions on which you might find that these routines aren't suitable. For example, they both wipe the screen, which isn't a lot of use if you want to keep something there. It's even less use if this is where your code is sitting...

First of all, these routines initialise certain aspects of the hardware. This involves sending 0 to &DF00 (ROM select), &89 to &7F00 (VGA control register), and &FF to &F800. &7F89 is also placed in alternate register BC', and alternate AF' is set by XOR A. IM 1 is selected, interrupts are disabled, and the stack pointer is reset to &C000. These are essential for correct operation.

The system variables area, between &B100 and &B8F8, is blanked. This must not, surprisingly, be omitted, otherwise, unpredictable results can, and do, occur. The routine at &0044 in the lower ROM is then called. This initialises the high kernel jumpblock and RST area and then proceeds to clear interrupt queues as KL CHOKE OFF (&BCC8). This routine, mercifully, is located at the same place in 464, 664, 6128 and Plus ROMs. The same can't be said about the next routine called, &BD37, which initialises the firmware. It helps, then, to copy this address first.

After this, all the firmware initialisation routines are called in turn to set up variables and indirections. EMS is then completed by enabling interrupts and returning, after which you should turn the lower ROM off (the standard firmware set-up does this by default). This, of course, is what the CPC does in the normal course of operation, but you don't need to do the same. In particular, you don't need to call every single firmware initialisation routine (such as &BBFF, which clears the screen), although bear in mind that the indirections between &BDD0 and &BDF1 still need to be set up. Filling this area with &C9 (RET) should suffice.

Back to BASICs

And to speed up your BASIC programs...

```
IF x<>0 THEN PRINT "Hello"
```

can just as easily be written as

```
IF x THEN PRINT "Hello".
```

A statement of the type

```
IF x<5 THEN x=x+1
```

common in moving the player in arcade games can be rewritten as x=MIN(x+1,5): conversely, IF x>0 THEN x=x-1 is equivalent to x=MAX(x-1,0).

Off to your manuals to find out why...

QUESTIONS AND ANSWERS

Pseud's corner

First, some notes about the Techy Forum in *Amstrad Action* 110...

'Accessing randoms' surprised me: you haven't mentioned the R register. Yet I think it's the best way, combined with a time variable, to have a random number. Of course, you can store screens at &0000 or &8000 – I do it (but not in BASIC). Some demomakers used 64K video RAM...!

I would like to know about special DOS's (*not another one – Richard*). I use *Magic DOS* (by Serge Querne), and then I can have 816K on a 5.25-inch disc. I must run a program to initialise *Magic DOS*, though, so if there is AMSDOS initialisation, I can't load more files.



Magic or not you must initialise it first.

What about *ROMDOS XL*, *VDOS* or *XD-DOS*? How many kilobytes can you have per side with these DOS's? Are there good copiers available for them?

Yves Gerey Boisseuil, France

The R register is a quick and easy way to generate random numbers. However, computers can actually only generate pseudo-random numbers, and some numbers are more pseudo-random than others...!

In some circumstances – for example, a short machine code loop – the R register is poor at generating a wide range of pseudo-random numbers. It is better, then, to use a seed-driven routine such as the one referred to in *AA110*.

Storing screens at &0000 and &8000 is a standard demo-makers' technique – I used it in the *Inspiration Demo*, for example – but it's not much use to someone who wants to use firmware routines, or BASIC even: 95% of the programming population. You really reckon that someone capable of writing firmware-free code is going to be writing to Techy Forum...?

VDOS and *XD-DOS* aren't generally available any more, and neither was too hot on the compatibility front. *ROMDOS* is fine if you are initialising all ROMs, as it kicks in after *AMSDOS* has initialised and replaces the firmware routines with its own. However, if – as most programs do – the program concerned only initialises the disc ROM, *ROMDOS* won't have a chance to strut its stuff. For this, your best bet is *ParaDOS*, available from Campursoft (see 'Your DES-tiny' opposite for contact details.).

ParaDOS is a program which is superior in all respects to *ROMDOS*. It also has the advantage that it can replace AMSDOS in slot 7 – on a ROM-board on a 6128 (provided the appropriate link is cut inside your CPC), or as a direct chip replacement on a 464 or 664. This should solve all of your compatibility problems – well, those that are computer-related, at least. *(Er, Rich, do you need reminding that this is a techy page not a personal, emotional and sexual problem page? Hang on, though, there is this bloke that I know that's quite nice. But I don't know if he feels the same way about me. What do you think I should do? – Ed.)*

ROMDOS and *ParaDOS* are both capable of formatting a disc to 396K per side, or 792K using a double-sided format. *ParaDOS* comes with an excellent built-in copier-cum-disc utility. *ROMDOS*

IMAGE CONSCIOUS

Win a copy of the new Turbo Imager (see Speed demon, page 22) on 3-inch disc from STS worth £10. Simply rearrange the letters below to form the place STS are based then put the answer on to a postcard or back of an envelope and send it to:

Image conscious,
***Amstrad Action*,**
Future Publishing,
30 Monmouth Street,
Bath, Avon BA1 2BW

before Thursday, 23 February, 1995.
STS are based in: Y A R B R

XL's isn't so hot, but the disc-based *Maxidos* utility is a decent supplement.

No such address

I thought the cure for CP/M Plus ('Plus Points', *AA* 110) was just what I needed, but alas, I can't find &C8 after skipping the track 2 directory. In sector 3, at the 15th line down, address &E0, DMON shows a line beginning with &F5. Where is the &C8 I have to change to &C9?

A friend has a stock program in a language called DWBASIC. I have never heard of but is it possible that the DW stands for David Wild? My friend's version is on 3.5-inch, while I can only use 3-inch. Will the program work on an expanded 464? If so, where can I get the DWBASIC disc and manual and what are the advantages of this language over BASIC?
Roy Everett, Braintree

This is the wrong place to look for the CP/M patch – you are skipping over the whole of track 2, rather than just the first four sectors which comprise the directory. The line beginning with &F5 is in track 3, sector &41. Redirect yourself to track 2, sector &45 and you should have more luck.

There isn't a David Wild program called DWBASIC, although he did write a short set of BASIC extensions called BASIC+ – a bit like the *AA* Toolkit, but in a much more primitive vein – it's unlikely that a stock control program would rely on this.

Are you sure it's a CPC-based program in the first place? It sounds much more like a PC version of the language, such as the popular GWBASIC (which stands for Gee Whizz Basic, fact freaks). Having said this, your CPC's Locomotive BASIC is a fairly standard implementation of the language. Therefore, you should be able to retype the whole file with only minimal alterations: saving the original program as ASCII, and getting a friendly CPCer with 3.5-inch and 3-inch drives to convert it from a PC to CPC disc, would be a less arduous alternative.

A stock control system is unlikely to use flashy graphics or sound, the main areas of incompatibility – just watch out for control codes, box-drawing routines, text display routines, and print handling, which are the main differences between machines. Two to note are the CPC's PRINT #8 – to send text to the printer – which equates to LPRINT on most machines, and LOCATE – to display text at a certain location – which can be anything from PRINT TAB to GOTOXY on other systems, with the CPC's X,Y parameters often being reversed, and the top left being (1,1) rather than Locomotive's (0,0).

Pin-down

I bought a 3.5-inch disc drive for my CPC and on getting it home found that the 5 volt connector cable was different to the plug on the disc drive. The connector is two rows of 17 pins making a 34-pin connector. My Amstrad CPC has only a 26-pin connector. The disc drive is made by Mitsumi, model D359T3.

Can anybody help?
Alex Harries, Kent

This is quite normal for 3.5-inch drives: just ignore the eight pins (two rows of four) on the right of the connector, looking from the back of the drive – probably the ones nearest the centre – and connect the remaining 26 to your disc drive port. Although I haven't seen the disc drive you mention, this should be all you need to do.

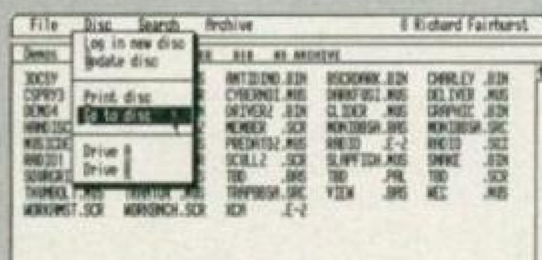
COVERTAPE CLINIC

Your DES-tiny



I recently bought a second-hand Amstrad CPC with a stack of discs, and when I saw your magazine with a program called *Desktop Organise* it looked the ticket to sort them all out. But, when I got it home the menu said that the program needed to be 'run from *DES*'.

What is *DES* and how do I access it so I can load the program?
David Nickless, Bury St Edmunds



DES: make your CPC as easy to use as an Apple Mac or a PC.

DES is short for *Desktop Environment System*, a program from Campursoft (£14.99. disc, £24.99 ROM), to make your CPC as easy to use as a Macintosh or a PC running Windows.

This program means that instead of typing in obscure commands you can select all the options you need using a pointer which you move around the screen. In addition, it can make these facilities available to specially-written programs, of which *Desktop Organise* is one, so they, too, can be just as easy to use.

To run *Desktop Organise* you need a copy of *DES*. The full version is available from Campursoft. Alternatively, if Christmas has emptied your wallet, get hold of *AA* issue 111, which features a demo version of *DES* on the covertape.

Although some of the features are missing, you can still run *Desktop Organise* with it.

Contact Campursoft at 10 Mcintosh Court, Wellpark, Glasgow G31 2HW ☎ 041 554 4735

Help, I've flipped!

Thank you for putting a menu on the *AA*112 tape. It makes everything so much easier to use. However, I'm still having problems transferring the tape to disc. It tells me to flip the disc, but, then, when I do this, the tape runs out, so I turn that over, too. Lo and behold, a few minutes later, it tells me to turn the tape over and rewind it to the beginning. But when I do this, it stops a while afterwards and the tape hasn't transferred.

I'm following all the instructions, so what's going wrong?
Sheila King, Dorchester

Just when we thought we'd got the disc transfer sorted... For some strange reason, the duplicators put some of the files meant for side A on to side B last month. This isn't a serious problem, but anyone still having difficulties transferring the tape should follow these instructions:

- flip both the tape and your disc when you are asked to flip the disc;
- ignore the 'turn the cassette over' message shortly afterwards.

You should end up with *Titus the Fox*, *Desktop Organise* and the *MegaBlasters* demo on disc.

Speed demon

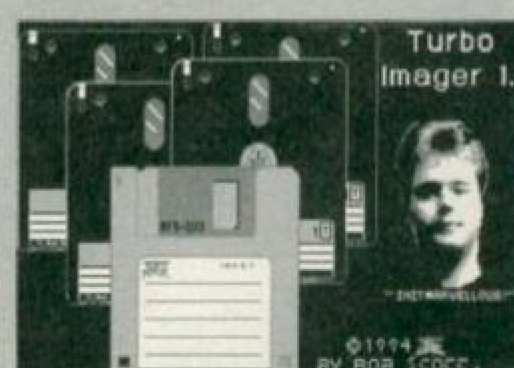
Desktop Organise would be useful for keeping my PD library discs archived on a 3.5-inch disc, but I find dearchiving slow.

Is there any way of speeding it up?
Alan Robertson, Glasgow

'Fraid not. The compression that is built into *Desktop Organise* inevitably slows the process down. For an alternative, you might like to try looking at STS's new *Turbo Imager*, (£10 incl p&p) which produces larger archive files – copying all the files on to a freshly formatted disc helps – but which is quite a lot quicker in operation.

You could win a copy of *Turbo Imager* – see the the Image Conscious box on page 21.

Contact STS at: 298 Holton Road, Barry, South Wales CF63 4HW ☎ 0446 700730.



***Turbo Imager*: large archive files.**



Get it write!

Richard Fairhurst is glad to help with your technical enquiries. But, please note that he can only answer queries through the magazine so please don't ring. Write to Techy Forum, *Amstrad Action*, 30 Monmouth Street, Bath Avon BA1 2BW or e-mail us at aa@futurenet.co.uk putting 'Techy F' in the subject line.

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